```
=>

L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR
/ Structure 1 in file .gra /


Structure attributes must be viewed using STN Express query preparation.


=> s l1 fam sam
SAMPLE SEARCH INITIATED 11:11:32 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      979 TO ITERATE

100.0% PROCESSED      979 ITERATIONS                              0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       17703 TO    21457
PROJECTED ANSWERS:              0 TO        0

L2            0 SEA FAM SAM L1

=> s l1 sss sam
SAMPLE SEARCH INITIATED 11:11:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    34515 TO ITERATE

  5.8% PROCESSED     2000 ITERATIONS                             31 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:      679189 TO   701411
PROJECTED ANSWERS:           9312 TO    12086

L3           31 SEA SSS SAM L1

=> d scan
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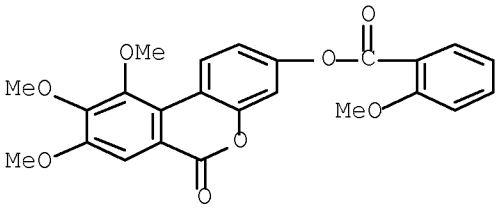
L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Benzoic acid, 2-methoxy-, 8,9,10-trimethoxy-6-oxo-6H-dibenzo[b,d]pyran-3- yl ester
Hit Structure

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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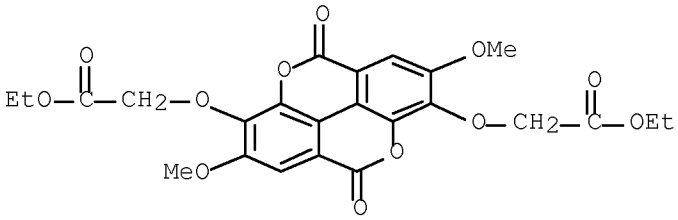
L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Acetic acid, 2,2'-[(5,10-dihydro-2,7-dimethoxy-5,10- dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-3,8-diyl)bis(oxy)]bis-, diethyl ester (9CI)
Hit Structure

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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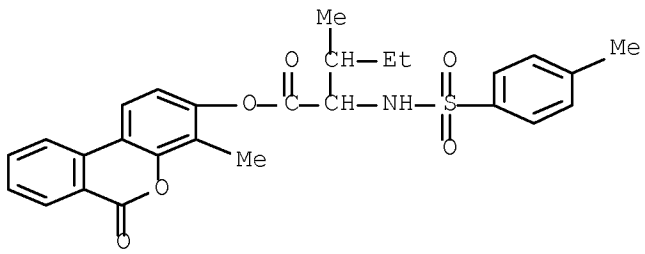
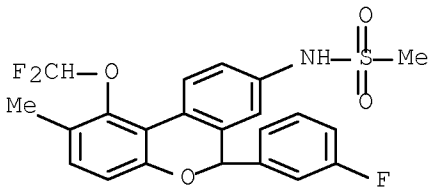
L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
INDEX NAME NOT YET ASSIGNED
Hit Structure



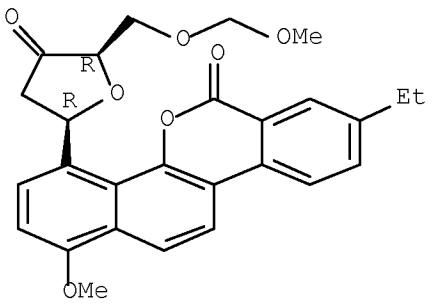
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Methanesulfonamide, N-[1-(difluoromethoxy)-6-(3-fluorophenyl)-2-methyl-6H- dibenzo[b,d]pyran-8-yl]-
Hit Structure



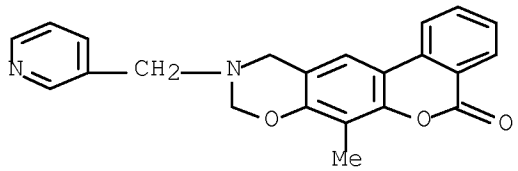
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Benzo[d]naphtho[1,2-b]pyran-6-one, 8-ethyl-1-methoxy-4-[tetrahydro-5-[(methoxymethoxy)methyl]-4-oxo-2- furanyl]-, (2R-cis)- (9CI)
Hit Structure

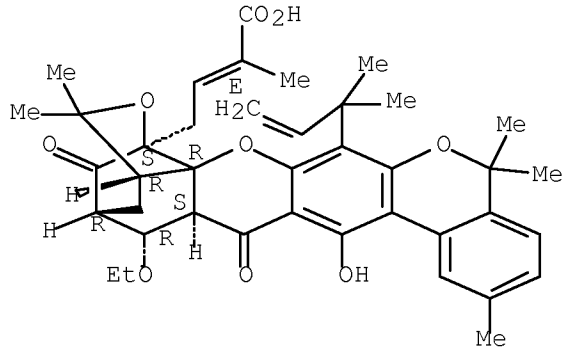


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
INDEX NAME NOT YET ASSIGNED
Hit Structure

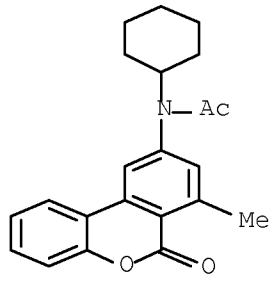


L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
2-Butenoic acid, 4-[(1R,3aS,5S,6S,6aR,16aS)-15-(1,1-dimethyl-2-propen-1- yl)-6-ethoxy-3a,4,5,6,6a,7-hexahydro-8-hydroxy-3,3,10,13,13-pentamethyl- 7,17-dioxo-1,5-methano-1H,3H,13H-[2]benzopyrano[4,3-b]furo[3,4-g] xanthen-1- yl]-2-methyl-, (2E)-rel-(+)-
Hit Structure



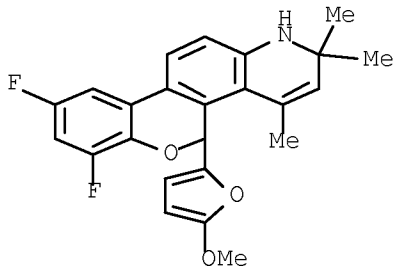
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Acetamide, N-cyclohexyl-N-(7-methyl-6-oxo-6H-dibenzo[b,d]pyran-9-yl)-
Hit Structure



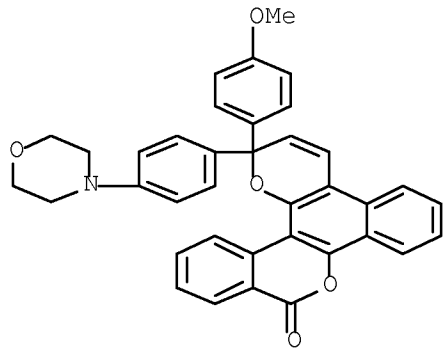
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

. L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
1H-[1]Benzopyrano[3,4-f]quinoline, 7,9-difluoro-2,5-dihydro-5-(5-methoxy-2-furanyl)-2,2,4-trimethyl-
Hit Structure



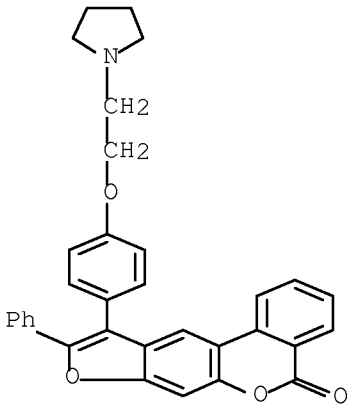
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

. L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
2H,10H-Dibenzo[c,h]pyrano[2,3-f][1]benzopyran-10-one, 2-(4-methoxyphenyl)-2-[4-(4-morpholinyl)phenyl]- (9CI)
Hit Structure



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

. L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
5H-[2]Benzopyrano[4,3-f]benzofuran-5-one, 9-phenyl-10-[4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-
Hit Structure

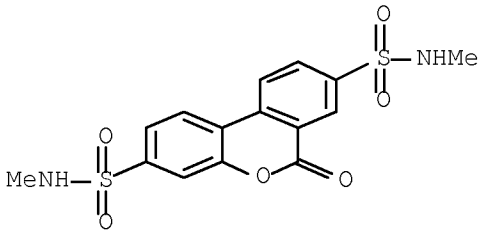


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor

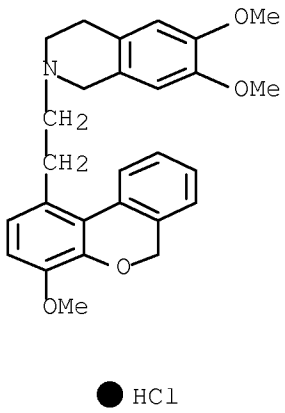
INDEX NAME NOT YET ASSIGNED

Hit Structure



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 31 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Isoquinoline, 1,2,3,4-tetrahydro-6,7-dimethoxy-2-[2-(4-methoxy-6H- dibenzo[b,d]pyran-1-yl)ethyl]-, hydrochloride (1:1)
Hit Structure

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=> s l1 fam full
FULL SEARCH INITIATED 11:12:33 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    19505 TO ITERATE

100.0% PROCESSED    19505 ITERATIONS                              5 ANSWERS
SEARCH TIME: 00.00.01

L4            5 SEA FAM FUL L1

=> s l4
L5          59 L4

=> d scan
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L5 59 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
Title
Catalytic Direct Arylation with Aryl Chlorides, Bromides, and Iodides: Intramolecular Studies Leading to New Intermolecular Reactions

L5 59 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
Title
Simple and Efficient TiCl4-Mediated Synthesis of Biaryls via Arylmagnesium Compounds

L5 59 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
Title
Photocyclization of o-phenoxybenzyl alcohols in aqueous solution. A simple synthesis of 6H-dibenzo[b,d]pyrans

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YOU HAVE REQUESTED DATA FROM 59 ANSWERS - CONTINUE? Y/(N):y
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L5 ANSWER 1 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:1406129 CAPLUS Full-text

Title
Analysis of chemical constituents of the volatile oil from Artemisia argyi by GC/MS

Author/Inventor
Xu, Xinjian; Song, Hai; Han, Yuqi; Yang, Wenlong; Zhao, Li

Patent Assignee/Corporate Source
Key Laboratory of Resources and Environment, Chemistry of West China, Department of Chemistry, Hexi University, Zhangye, Gansu Province, 734000, Peop. Rep. China

Source
Shizhen Guoyi Guoyao (2007), 18(11), 2657-2658 CODEN: SGGHAL; ISSN: 1008-0805

Document Type
Journal

Language
Chinese

Abstract
The chemical constituents of the volatile oil from Artemisia argyi Levl. et Vant were analyzed. The volatile oil was extracted from Artemisia argyi Levl. et Vant. by steam distillation The components of the volatile oil were separated and identified by GC-MS. The relative content of each component was determined by area normalization. Fifty-four kinds of components were separated Among them, thirty-eight components were identified, accounting about 78.92% of the total volatile oil. The main components in the volatile oil of Artemisia argyi Levl. et Vant. were 7-ethyl-1,4-dimethyl-azulene (17.34%), eucalyptol (10.37%) and β-limonenol (8.16%) etc.

Hit Structure

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CAS Registry Number
229-95-8  CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran  (CA INDEX NAME)
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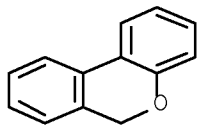

L5 ANSWER 2 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:1383595 CAPLUS Full-text

Document Number
149:555101

Title
Allylic and benzylic carbanions substituted by heteroatoms

Author/Inventor
Biellmann, Jean-Francois; Ducep, Jean-Bernard

Patent Assignee/Corporate Source
Strasbourg, Fr.

Source
Organic Reactions (Hoboken, NJ, United States) (1982), 27, No pp. given CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi- bin/mrwhome/107610747/HOME

Document Type
Journal; General Review; (online computer file)

Language
English

Abstract
A review of the article Allylic and benzylic carbanions substituted by heteroatoms.

Hit Structure

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CAS Registry Number
229-95-8  CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran  (CA INDEX NAME)
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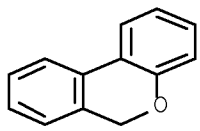

L5 ANSWER 3 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:1383566 CAPLUS Full-text

Document Number
149:555080

Title
The intramolecular Heck reaction

Author/Inventor
Link, J. T.

Patent Assignee/Corporate Source
Abbott Laboratories, Abbott Park, IL, USA

Source
Organic Reactions (Hoboken, NJ, United States) (2002), 60, No pp. given CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi- bin/mrwhome/107610747/HOME

Document Type
Journal; General Review; (online computer file)

Language
English

Abstract
A review of the article The intramol. Heck reaction.

Hit Structure

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CAS Registry Number
229-95-8  CAPLUS
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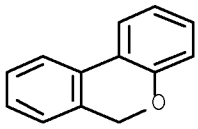
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 4 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:1200554 CAPLUS Full-text

Document Number
149:471179

Title
Novel and Rapid Palladium-Assisted 6π Electrocyclic Reaction Affording 9,10-Dihydrophenanthrene and Its Analogues

Author/Inventor
Jana, Rathin; Chatterjee, Indranil; Samanta, Shubhankar; Ray, Jayanta K.

Patent Assignee/Corporate Source
Department of Chemistry, Indian Institute of Technology, Kharagpur, 721302, India

Source
Organic Letters (2008), 10(21), 4795-4797 CODEN: ORLEF7; ISSN: 1523-7060

Document Type
Journal

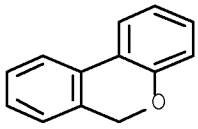
Language
English

Abstract
A novel methodol. for the synthesis of 9,10-dihydrophenanthrene and its analogs, e.g., I, has been developed via a palladium-assisted 6π electrocyclic reaction of dihydropyranyl(bromodihydronaphthalene) derivs., followed by formaldehyde elimination.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 5 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:633593 CAPLUS Full-text

Document Number
149:200706

Title
Mild and efficient palladium-catalyzed intramolecular direct arylation reactions

Author/Inventor
Lafrance, Marc; Lapointe, David; Fagnou, Keith

Patent Assignee/Corporate Source
Center for Catalysis Research and Innovation, Department of Chemistry, University of Ottawa, Ottawa, ON, K1N 6N5, Can.

Source
Tetrahedron (2008), 64(26), 6015-6020 CODEN: TETRAB; ISSN: 0040-4020

Document Type
Journal

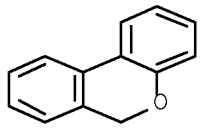
Language
English

Abstract
The influence of ligand, stoichiometric base, and additive has been evaluated in the context of intramol. direct arylation reactions. Under the optimal conditions, arylation of simple arenes can be performed under very mild conditions, with heating to 50 °C. The role of the pivalic acid additive is rationalized by invoking a concerted palladation-deprotonation pathway where the pivalate is behaving as either an intramol. base from the palladium metal or through an intermol. deprotonation in a similar manner as that previously described.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 6 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:190867 CAPLUS Full-text

Document Number
148:230620

Title
Use of glucocorticoid receptor antagonists as immunostimulants for treatment of infectious conditions

Author/Inventor
Peeters, B. w. m. m. Bernardus

Patent Assignee/Corporate Source
N.V. Organon, Neth.

Source
PCT Int. Appl., 11pp. CODEN: PIXXD2

Document Type
Patent

Language
English

Patent Information

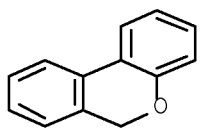
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008017658	A2	20080214	WO 2007-EP58134	20070806
WO 2008017658	A3	20080410		
AU 2007283604	A1	20080214	AU 2007-283604	20070806
EP 2051705	A2	20090429	EP 2007-788248	20070806
KR 2009039775	A	20090422	KR 2009-702988	20090213

Abstract
The invention provides the use of a glucocorticoid receptor antagonist for the manufacture of a medicament for immune stimulation, such as prevention or treatment of infections or infectious conditions, in an aging mammalian subject, a mammalian subject with low serum DHEAS values, a mammalian subject with a high serum cortisol/DHEAS ratio or a mammalian subject with high neutrophil counts. In particular, the glucocorticoid receptor antagonist can be chosen from the group consisting of a dibenzopyranyl derivative defined and/or exemplified in US6329534 and WO200116128, mifepristone, and (11β,17β)-11-(1,3-benzodioxol-5-yl)-17-hydroxy- 17-(1-propynyl)estra-4,9-dien-3-one.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 7 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2007:1300705 CAPLUS Full-text

Document Number
147:515077

Title
The use of a glucocorticoid receptor II antagonist to treat depression in patients taking interleukin-2

Author/Inventor
Belanoff, Joseph K.

Patent Assignee/Corporate Source
Corcept Therapeutics, Inc., USA

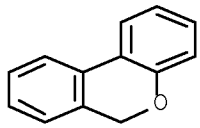
Source
PCT Int. Appl., 39pp. CODEN: PIXXD2
Document Type
Patent
Language
English
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007131041	A2	20071115	WO 2007-US68044	20070502
WO 2007131041	A3	20081009		
AU 2007248059	A1	20071115	AU 2007-248059	20070502
CA 2649894	A1	20071115	CA 2007-2649894	20070502
EP 2012796	A2	20090114	EP 2007-783115	20070502

Abstract
The invention pertains to the discovery that type II glucocorticoid receptor antagonists can be used in methods for reversing or inhibiting the symptoms of depression in patients receiving interleukin-2 treatment.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

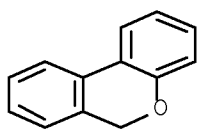
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 8 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2006:71452 CAPLUS Full-text
Document Number
144:274064
Title
Catalytic Direct Arylation with Aryl Chlorides, Bromides, and Iodides: Intramolecular Studies Leading to New Intermolecular Reactions
Author/Inventor
Campeau, Louis-Charles; Parisien, Mathieu; Jean, Annie; Fagnou, Keith
Patent Assignee/Corporate Source
Center for Catalysis Research and Innovation, Department of Chemistry, University of Ottawa, Ottawa, K1N 6N5, Can.
Source
Journal of the American Chemical Society (2006), 128(2), 581-590 CODEN: JACSAT; ISSN: 0002-7863
Document Type
Journal
Language
English
Abstract
A catalyst for the intramol. direct arylation of a broad range of simple and heterocyclic arenes with aryl iodides, bromides, and chlorides has been developed. These reactions occur in excellent yield and are highly selective. Studies with aryl iodides substrates revealed that catalyst poisoning occurs due to the accumulation of iodide in the reaction media. This can be overcome by the addition of silver salts which also permits these reactions to occur at lower temperature The utility of the methodol. is illustrated by a rapid synthesis of a carbazole natural product and by the synthesis of sterically encumbered tetra-ortho-substituted biaryls via ring-opening reactions of the direct arylation products. Mechanistic investigations have provided insight into the catalyst's mode of action and show the presence of a kinetically significant C-H bond cleavage in palladium-catalyzed direct arylation of simple arenes. Knowledge garnered from these studies has led to the development of new intermol. arylation reactions with previously inaccessible arenes, opening the door for the development of other new direct arylation processes.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 9 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:58265 CAPLUS Full-text

Document Number
144:292196

Title
Solvolysis and ring closure of quinone methides photogenerated from biaryl systems

Author/Inventor
Shi, Yijian; Wan, Peter

Patent Assignee/Corporate Source
Department of Chemistry, University of Victoria, Victoria, BC, V8W 3V6, Can.

Source
Canadian Journal of Chemistry (2005), 83(9), 1306-1323 CODEN: CJCHAG; ISSN: 0008-4042

Document Type
Journal

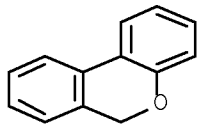
Language
English

Abstract
A variety of biaryl quinone methides have been photogenerated with a range of efficiencies from biaryl precursors , all having hydroxyl and hydroxymethyl substituents on alternate rings. These novel biaryl quinone methides, which cannot be readily generated via thermal chemical, are trapped by added nucleophiles such as MeOH and ethanolamine; two that cannot undergo electrocyclic ring closure are readily observable by nanosecond laser photolysis, with long wavelength maxima (λmax) of 600 and 520 nm, resp. Photogenerated o,o'-biaryl quinone methides undergo electrocyclic ring closure to give the corresponding chromene (pyran) products in high yield. Since the precursor biaryl alcs. have highly twisted structures in the ground state (dihedral angle of up to 90° by mol. mechanics calcns.), a significant twisting motion to planarity is required to achieve reaction. Using steady-state fluorescence studies, we present evidence to suggest that the mechanism of quinone methide formation may occur via one of the following mechanisms: (i) dissociation of the proton from ArOH that precedes twisting; or (ii) ArOH dissociation and twisting taking place either simultaneously or in quick succession.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 10 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:777815 CAPLUS Full-text

Document Number
143:366743

Title
Direct Arylation Reactions Catalyzed by Pd(OH)2/C: Evidence for a Soluble Palladium Catalyst

Author/Inventor
Parisien, Mathieu; Valette, Damien; Fagnou, Keith

Patent Assignee/Corporate Source
Center for Catalysis Research and Innovation, Department of Chemistry, University of Ottawa, Ottawa, ON, K1N 6N5, Can.

Source
Journal of Organic Chemistry (2005), 70(19), 7578-7584 CODEN: JOCEAH; ISSN: 0022-3263

Document Type
Journal

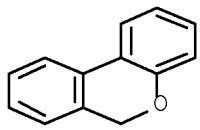
Language
English

Abstract
Palladium hydroxide on carbon (Pearlman's catalyst) effectively catalyzes direct arylation reactions of aryl iodides and bromides, providing excellent arylation-to-hydrodehalogenation ratios (>30:1) with broad scope for both intra- and intermol. arylation processes. E.g., arylation of thiazole by 4-BrC6H4Me gave 71% 5-(4-methylphenyl)thiazole. E.g., intramol. arylation of aryl iodide I gave 95% 6H-dibenzo[b,d]pyran II. Studies aimed at determining the nature of the active catalyst indicate that an active homogeneous palladium species is produced under the reaction conditions.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 11 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:295735 CAPLUS Full-text

Document Number
143:7579

Title
High-yielding intramolecular direct arylation reactions with aryl chlorides

Author/Inventor
Campeau, Louis-Charles; Thansandote, Praew; Fagnou, Keith

Patent Assignee/Corporate Source
Department of Chemistry, University of Ottawa, Ottawa, ON, K1N 6N5, Can.

Source
Organic Letters (2005), 7(9), 1857-1860 CODEN: ORLEF7; ISSN: 1523-7060

Document Type
Journal

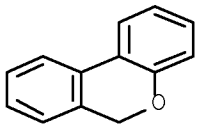
Language
English

Abstract
An N-heterocyclic carbene palladium catalyst system was used to promote direct arylation of a broad range of aryl chlorides to form six- and five-membered ring biaryls, e.g., I. An influence of the halide on the palladium precatalyst on catalyst activation has been revealed, as has a beneficial effect of NHC salts that allowed the turnover nos. to be increased by simple addition of imidazolium salts to the reaction mixture

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 12 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2004:553571 CAPLUS Full-text

Document Number
141:140284

Title
Biaryl synthesis via direct arylation: establishment of an efficient catalyst for intramolecular processes

Author/Inventor
Campeau, Louis-Charles; Parisien, Mathieu; Leblanc, Melissa; Fagnou, Keith

Patent Assignee/Corporate Source
Center for Catalysis Research and Innovation, University of Ottawa, Ottawa, ON, K1N 6N5, Can.

Source
Journal of the American Chemical Society (2004), 126(30), 9186-9187 CODEN: JACSAT; ISSN: 0002-7863

Document Type
Journal

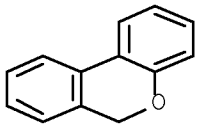
Language
English

Abstract
The direct arylation reaction with improved scope and catalyst activity for the intramol. formation of biaryl compds., e.g., I, is reported. This was achieved through the establishment of a highly active and robust catalyst system and the subsequent development of a phosphine ligand II. The enhanced catalytic activity, extended these transformations to include previously unreactive and poorly reactive substrates, and allowed for very low catalyst loadings.

Hit Structure

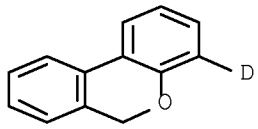
CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



CAS Registry Number
725213-82-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-4-d (9CI) (CA INDEX NAME)



L5 ANSWER 13 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2004:322092 CAPLUS Full-text

Document Number
141:38470

Title
Formal Radical Cyclization onto Benzene Rings: A General Method and Its Use in the Synthesis of ent-Nocardione A

Author/Inventor
Clive, Derrick L. J.; Fletcher, Stephen P.; Liu, Dazhan

Patent Assignee/Corporate Source
Chemistry Department, University of Alberta, Edmonton, AB, T6G 2G2, Can.

Source
Journal of Organic Chemistry (2004), 69(10), 3282-3293 CODEN: JOCEAH; ISSN: 0022-3263

Document Type
Journal

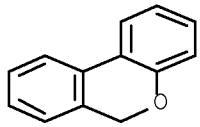
Language
English

Abstract
An indirect method is described for effecting radical cyclization onto a benzene ring. Cross-conjugated dienones, e.g. I, which are readily prepared from phenols, undergo radical cyclization, and the products, e.g. II, are easily aromatized. The method has been applied to the synthesis of (+)-ent-nocardione A (III).

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 14 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2003:534761 CAPLUS Full-text

Document Number
139:230241

Title
Control of Kinetics and Thermodynamics of [1,5]-Shifts by Aromaticity: A View through the Prism of Marcus Theory

Author/Inventor
Alabugin, Igor V.; Manoharan, Mariappan; Breiner, Boris; Lewis, Frederick D.

Patent Assignee/Corporate Source
Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL, 32306-4390, USA

Source
Journal of the American Chemical Society (2003), 125(31), 9329-9342 CODEN: JACSAT; ISSN: 0002-7863

Document Type
Journal

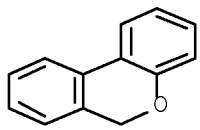
Language
English

Abstract
The effects of aromatic stabilization on the rates of [1,5]-H shifts in carbo- and heterocyclic dihydroarom. compds. were estimated by B3LYP/6-31G** computations. The aromatic stabilization energy of the product is directly translated into increased exothermicity of these reactions. Relative trends for a significant range of endothermic and exothermic [1,5]-shifts with different intrinsic activation energies are reliably described by Marcus theory. The effects of aromaticity or antiaromaticity are very large and can lead to dramatic acceleration or deceleration of [1,5]-H shifts and even to complete disappearance of the reaction barrier. Not only the activation energy but the shape and position of the reaction barrier can be efficiently controlled by changes in the aromaticity of the products, making these systems interesting models for studying H tunneling. Marcus theory can also be applied successfully to other pericyclic shifts such as [1,5]-shifts which involve Cl and Me transfer.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 15 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2003:107411 CAPLUS Full-text

Document Number
139:36414

Title
Formal radical cyclization onto benzene rings-a general method proceeding via cross-conjugated dienones

Author/Inventor
Clive, Derrick L. J.; Fletcher, Stephen P.; Zhu, Mingzhao

Patent Assignee/Corporate Source
Chemistry Department, University of Alberta, Edmonton, AB, T6G 2G2, Can.

Source
Chemical Communications (Cambridge, United Kingdom) (2003), (4), 526-527 CODEN: CHCOFS; ISSN: 1359-7345

Document Type
Journal

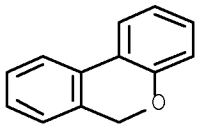
Language
English

Abstract
Cross-conjugated dienones, which are readily available from phenols, undergo radical cyclization, and the products were easily aromatized, giving substances that are formally derived by radical cyclization onto a benzene ring. E.g., 1,4-benzenediol was benzylated with 2-iodobenzyl bromide using K2CO3 in DMF to give 4-[(2-iodophenyl)methoxy]phenol in 59% yield, which was subsequently treated with PhI(OAc)2, K2CO3 and MeOH to give dienone I in 87% yield. I then underwent radical cyclization using AIBN and Bu3SnH in toluene to form cyclic ether II in 100% yield, which was in turn aromatized using TsOH and acetone in CH2Cl2 to give phenol II in 90% yield.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 16 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2002:733535 CAPLUS Full-text

Document Number
138:308085

Title
Strategy for the identification of unknown POP

Author/Inventor
Schramm, K.-W.

Patent Assignee/Corporate Source
Institute of Ecological Chemistry, GSF-National Research Center for Environment and Health, Neuherberg, D-85764, Germany

Source
Organohalogen Compounds (2001), 52(Dioxin 2001), 366-369 CODEN: ORCOEP; ISSN: 1026-4892

Document Type
Journal

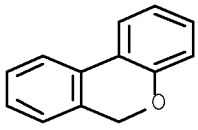
Language
English

Abstract
A novel test strategy was developed to identify samples of persistent organic pollutants (POP) based on their long-term or chronic toxicol. properties. POP consist of a priority sub-group called PBT, defined as organic substances which are persistent, bioaccumulative, and possess toxic characteristics likely to cause adverse human health or environmental effects. A simple pretreatment of lipophilic exts. with acidified SiO2 serves as an initial, easily performed attempt to identify unknown PBT. Further toxicol. investigations of pure compds. found and characterized will identify those as PBT.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

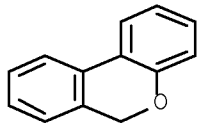
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 17 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2002:271159 CAPLUS Full-text
Document Number
137:298964
Title
Engineering bacterial capable of degrading harmful chemicals
Author/Inventor
Fukukawa, Kensuke
Patent Assignee/Corporate Source
Graduate School of Agriculture Research, Kyushu University, Japan
Source
Kagaku Kogyo (2002), 53(2), 101-106 CODEN: KAKOAY; ISSN: 0451-2014
Document Type
Journal; General Review
Language
Japanese
Abstract
A review on the introduction of gene(s) for bioremediation-associated enzymes into bacteria to prepare "superbugs" for the degradation of environmental pollutants such as polyvinylbiphenyl (PCB), single-ring aroms., dibenzopyran and dioxin, trichloroethylene, etc.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

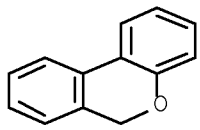
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 18 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2001:85093 CAPLUS Full-text
Document Number
134:310967
Title
A new cascade radical reaction for the synthesis of biaryls and triaryls from benzyl iodoaryl ethers
Author/Inventor
Harrowven, D. C.; Nunn, M. I. T.; Newman, N. A.; Fenwick, D. R.
Patent Assignee/Corporate Source
Department of Chemistry, The University, Southampton, S017 1BJ, UK
Source
Tetrahedron Letters (2001), 42(5), 961-964 CODEN: TELEAY; ISSN: 0040-4039
Document Type
Journal
Language
English
Abstract
A new method of synthesizing biaryls and triaryls through an intramol. ipso-substitution reaction initiated by the addition of an aryl radical to a benzyl ether is described. A tandem variant of the reaction is also demonstrated. Addnl., a short synthesis of isoaucuparin, a natural product found in the sapwood tissue of Sorbus aucuparia, is reported.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

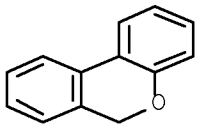
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 19 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2000:832495 CAPLUS Full-text
Document Number
134:326206
Title
Simple and Efficient TiCl4-Mediated Synthesis of Biaryls via Arylmagnesium Compounds
Author/Inventor
Inoue, A.; Kitagawa, K.; Shinokubo, H.; Oshima, K.
Patent Assignee/Corporate Source
Graduate School of Engineering, Department of Material Chemistry, Kyoto University, Sakyo-ku, Kyoto, 606-8501, Japan
Source
Tetrahedron (2000), 56(49), 9601-9605 CODEN: TETRAB; ISSN: 0040-4020
Document Type
Journal
Language
English
Abstract
Oxidative self-coupling reactions of various arylmagnesium bromides (prepared from RC6H4Br-4; R = H, Me, OMe, CF3, Br) with TiCl4 affords the corresponding sym. biaryls, such as I, in moderate to good yields at 0° or at lower temps. Tributylmagnesate-induced halogen-magnesium exchange of aryl halides followed by the coupling reaction provides biaryls in good yields under mild conditions. This method can achieve a one-pot synthesis of biaryls containing functional groups such as esters, amides, or nitriles.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 20 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2000:62978 CAPLUS Full-text

Document Number
132:207888

Title
CuCl-Mediated Intramolecular Oxidative Coupling of Aryl- and Alkenyltrimethylstannane Functions

Author/Inventor
Piers, Edward; Yee, James G. K.; Gladstone, Patricia L.

Patent Assignee/Corporate Source
Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 1Z1, Can.

Source
Organic Letters (2000), 2(4), 481-484 CODEN: ORLEF7; ISSN: 1523-7060

Document Type
Journal

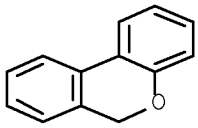
Language
English

Abstract
The syntheses of bis-trimethylstannanes, e.g., I [R1 = R2 = R3 = H, X = OCH2, CH2OCH2, CH2C(CO2Et)2CH2] are described. Treatment of these substances with .apprx.5 equiv of CuCl in DMF at rt for 30-60 min effects, in each case, oxidative coupling between the two sp2 C centers bearing the Me3Sn function to produce good-to-excellent yields of tricyclic products, e.g., II. E.g., I [R1 = R2 = R3 = H, X = CH2C(CO2Et)2CH2] is stirred in DMF at room temperature and upon addition of CuCl to give a 78% yield of II.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

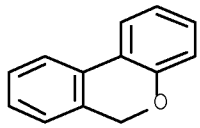
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 21 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1997:8127 CAPLUS Full-text
Document Number
126:131352
Title
The chemistry and reactivity of aryl radicals - the C-C bond formation from o-bromobenzylphenyl ethers with tin hydride and azobisisobutyronitrile
Author/Inventor
Rosa, Ana M.; Lobo, Ana M.; Branco, Paula S.; Prabhakar, Sundaresan
Patent Assignee/Corporate Source
Dep. Quimica, Univ. Nova Lisboa, Monte da Caparica, 2825, Port.
Source
Tetrahedron (1997), 53(1), 285-298 CODEN: TETRAB; ISSN: 0040-4020
Document Type
Journal
Language
English
Abstract
Treatment of 2-bromobenzyl Ph ethers and a two fold excess of tributyltin hydride (TBTH) with 0.5 to 0.6 mol equivalent of AIBN induced an inefficient C(aryl)-C(aryl) bond formation. The structures of the products resulting from a 1,5 and/or a 1,6 addns. were found to be largely determined by the presence or absence of the substituent and its position in the Ph ring. For example, the radical cyclization of 1-bromo-2-(phenoxymethyl)benzene gave 6H-dibenzo[b,d]pyran.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

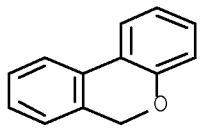
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 22 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1993:180582 CAPLUS Full-text
Document Number
118:180582
Title
Part I. Novel syntheses of substituted-6H-dibenzo[b,d]pyrans by Pschorr cyclization. Part II. Syntheses and studies of mesomorphic compounds derived from 3-amino and 3-hydroxy-6H-dibenzo[b,d]pyrans
Author/Inventor
Su, Wen Chen
Patent Assignee/Corporate Source
Kent State Univ., Kent, OH, USA
Source
(1991) 165 pp. Avail.: Univ. Microfilms Int., Order No. DA9200538 From: Diss. Abstr. Int. B 1992, 52(7), 3612
Document Type
Dissertation
Language
English
Abstract
Unavailable
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

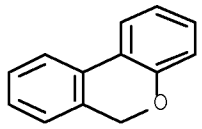
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 23 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1993:141294 CAPLUS Full-text
Document Number
118:141294
Title
Determination of tetrachlorinated dibenzo-p-dioxins, dibenzofurans, and related compounds in the commercial herbicide 2,4-D
Author/Inventor
Brodskii, E. S.; Klyuev, N. A.; Zhil'nikov, V. G.; Murenets, N. V.; Bocharov, B. V.; Rusinov, G. L.
Patent Assignee/Corporate Source
Inst. Anim. Evol. Morphol. Ecol., Moscow, Russia
Source
Zhurnal Analiticheskoi Khimii (1992), 47(8), 1497-503 CODEN: ZAKHA8; ISSN: 0044-4502
Document Type
Journal
Language
Russian
Abstract
Combined gas chromatog. and low-resolution mass spectroscopy were used to determine PCBs, di-Ph ethers, phenoxyphenols, polychlorinated dibenzo-p-dioxins, xanthones, and polychlorinated benzofurans in two com. samples of the herbicide 2,4-D. Total contents of tetrachlorinated dibenzo-p-dioxins and tetrachlorodibenzofurans in the first sample were 5.9 and 122.1 ng/g and in the second sample 2.6 and 76.0 ng/g, resp.; the most toxic TCDD level in the 2 samples was 0.1 and 0.002 ng/g, resp.
Hit Structure

CAS Registry Number
146442-65-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, dichloro- (9CI) (CA INDEX NAME)



2 (D1—Cl)

. L5 ANSWER 24 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1993:123817 CAPLUS Full-text

Document Number
118:123817

Title
'ValleyScan': A new two-bond drive technique for the calculation of potential energy surfaces with less computational effort

Author/Inventor
Bringmann, Gerhard; Guessregen, Stefan; Busse, Holger

Patent Assignee/Corporate Source
Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, D-8700, Germany

Source
Journal of Computer-Aided Molecular Design (1992), 6(5), 505-12 CODEN: JCADEQ; ISSN: 0920-654X

Document Type
Journal

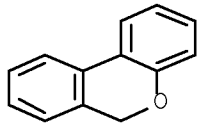
Language
English

Abstract
A novel, CPU-time inexpensive two-bond drive technique, called ValleyScan, is described. It makes it possible to omit the chemical nonrelevant points of high energy, which are normally part of a two-dimensional (2D) grid calcn. The new procedure works well for the calcn. of the ring inversion of cyclic mols., but should also be useful for other two-bond problems, e.g. side-chain movements in larger mols. (e.g. proteins). The algorithm is based upon pseudocode description and can easily be included in any mol. modeling software with an open user interface. Starting from an energy min., the calcn. scans the potential surface in all directions up to a user-defined energy limit. With this strategy, attention is paid only to the area close to the stationary points - energetically higher structures do not have to be calculated The procedure was applied to the test mols. 1,3-cyclohexadiene, 2H-pyran, and 6H-dibenzo[b,d]pyran.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

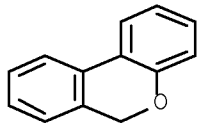
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 25 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1993:101685 CAPLUS Full-text
Document Number
118:101685
Title
Origin of the [M - H]+ ion in flavanone
Author/Inventor
Guidugli, Federico H.; Kakva, Juan; Santillan, Rosa L.; Garibay, Maria E.; Joseph-Nathan, Pedro
Patent Assignee/Corporate Source
Fac. Quim. Bioquim. Farm., Univ. Nac. San Luis, San Luis, 5700, Argent.
Source
Organic Mass Spectrometry (1992), 27(11), 1299-304 CODEN: ORMSBG; ISSN: 0030-493X
Document Type
Journal
Language
English
Abstract
Studies of the genesis of the [M - H]+ ion in flavanone and 2'-hydroxychalcone, performed with the aid of metastable decompns. and deuterium labeling, allow new structural notations to be postulated for the [M - H]+ ions, which in turn provide evidence for the pathways in the [M - H - ketone]+ fragmentation routes for these compds.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

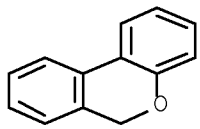
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 26 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1991:607804 CAPLUS Full-text
Document Number
115:207804
Title
Mechanism of photoisomerization of xanthene to 6H-dibenzo[b,d]pyran in aqueous solution
Author/Inventor
Huang, C. G.; Shukla, Deepak; Wan, Peter
Patent Assignee/Corporate Source
Dep. Chem., Univ. Victoria, Victoria, BC, V8W 3P6, Can.
Source
Journal of Organic Chemistry (1991), 56(18), 5437-42 CODEN: JOCEAH; ISSN: 0022-3263
Document Type
Journal
Language
English
Abstract
The photoisomerization of xanthene (I) to 6H-dibenzo[b,d]pyran (II) is reported and a reaction mechanism proposed that involves initial Ar-O bond homolysis from the singlet excited state. The reaction was most efficient in aqueous solution and appears to be general for xanthene derivs. as exemplified by photolysis of 9-methylxanthene.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

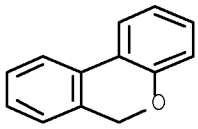
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 27 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1991:558256 CAPLUS Full-text
Document Number
115:158256
Title
Photocyclization of 2-(2'-hydroxyphenyl)benzyl alcohol and derivatives via o-quinonemethide type intermediates
Author/Inventor
Huang, C. G.; Beveridge, Kathryn Anne; Wan, Peter
Patent Assignee/Corporate Source
Dep. Chem., Univ. Victoria, Victoria, BC, V8W 3P6, Can.
Source
Journal of the American Chemical Society (1991), 113(20), 7676-84 CODEN: JACSAT; ISSN: 0002-7863
Document Type
Journal
Language
English
Abstract
A new photochem. reaction, the photocyclization of 2-(2'-hydroxyphenyl)benzyl alc. (I) and derivs. to 6H-dibenzo[b,d]pyrans, is reported. The quantum yield for cyclization of I to give pyran (II) is 0.50 ± 0.04 in aqueous solns. of pH > 10. At lower pH, Φ is significantly lower. For example at pH 7, Φ = 0.25 ± 0.03. Results from investigations of structure-reactivity, pH effects, and fluorescence data suggest a mechanism in which the primary step involves ionization of the phenol moiety to phenolate in S1, which is probably followed by (or is concerted with) twisting of the Ph rings to give a more planar species in the excited state. This is subsequently followed by (or is concerted with) a dehydroxylation step of the benzyl alc. moiety (all on the S1 surface) to give an o-quinonemethide type intermediate (III) and deactivation back to the ground-state surface. Electrocyclic ring closure of this intermediate gives the observed pyran. Nucleophilic trapping of this electrophilic intermediate by solvent (e.g., MeOH) to give the Me ether is also observed when photolysis is carried out in MeOH. The proposed reaction pathway is unprecedented: it takes advantage of the tendency of biphenyl systems to be planar in the excited state as well as the enhanced electron-donating effect of the phenolate anion, which is required for the dehydroxylation step.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 28 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1991:491452 CAPLUS Full-text

Document Number
115:91452

Title
Photochemistry of phenoxybenzyl alcohols in aqueous solution: photosolvolysis vs. photorearrangement to 6H-dibenzo[b,d]pyrans

Author/Inventor
Huang, C. G.; Wan, Peter

Patent Assignee/Corporate Source
Dep. Chem., Univ. Victoria, Victoria, BC, V8W 3P6, Can.

Source
Journal of Organic Chemistry (1991), 56(16), 4846-53 CODEN: JOCEAH; ISSN: 0022-3263

Document Type
Journal

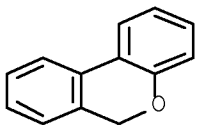
Language
English

Abstract
The photochem. of phenoxybenzyl alcs. PhOC6H4CH2OH-o (I), -CHMeOH-o (II), and -CH2OH-m (III) has been studied in MeOH, CH3CN, and in aqueous solution It was found that I and II gave the corresponding 6H-dibenzopyrans IV (R = H, Me, resp.) via a mechanism believed to involve initial aryl C-O bond homolysis followed by rearrangement to give a 2-(2'-hydroxyphenyl)benzyl alc. (biphenyl) derivative, which subsequently undergoes a photocyclization reaction to the corresponding IV. The quantum yield for formation of IV (R = H) (from I) was 0.0073 in neutral 6:4 H2O-CH3CN. Lower quantum yields for formation of IV were observed on photolysis in pure organic solvents (Φ = 0.015 in 100% CH3CN). III did not give any reaction via a similar photocyclization process: its photochem. involves initial aryl C-O bond homolysis followed by simple radical recoupling to give isomeric hydroxybiphenyls, as well as products derived from radical escape. In aqueous sulfuric acid solution (pH < 2), a competing acid-catalyzed photosolvolysis reaction was observed for all of these compds. (i.e., C-OH bond heterolysis with assistance of hydronium ion); it was the only observed reaction in moderately concentrated sulfuric acid solution

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

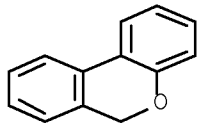
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 29 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1990:531938 CAPLUS Full-text
Document Number
113:131938
Title
Model synthetic studies for the construction of 5H-phenanthro[4,5-bcd]pyran and -pyrone systems
Author/Inventor
Majumder, P. L.; Sarkar, A. K.
Patent Assignee/Corporate Source
Dep. Chem., Univ. Coll. Sci., Calcutta, 700 009, India
Source
Journal of the Indian Chemical Society (1989), 66(8), 673-80 CODEN: JICSAH; ISSN: 0019-4522
Document Type
Journal
Language
English
Abstract
The preparation of the title phenanthropyran and -pyrone systems e.g. I (R, R1 = H, RR1 = O) via the cyclization of 5,2-MeO2CCH2(MeO)C6H3OCH2C6H4NH2-2 to dibenz[bd]pyran II and starting from 3,4-HO(MeO) C6H3CH2OH and 2-O2NC6H4CH2Br is reported.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

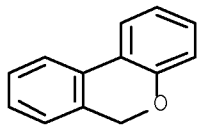
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 30 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1989:212550 CAPLUS Full-text
Document Number
110:212550
Title
Photocyclization of o-phenoxybenzyl alcohols in aqueous solution. A simple synthesis of 6H-dibenzo[b,d]pyrans
Author/Inventor
Wan, Peter; Huang, Cai Gu
Patent Assignee/Corporate Source
Dep. Chem., Univ. Victoria, Victoria, BC, V8W 2Y2, Can.
Source
Journal of the Chemical Society, Chemical Communications (1988), (17), 1193-5 CODEN: JCCCAT; ISSN: 0022-4936
Document Type
Journal
Language
English
Abstract
A new photochem. cyclization of o-PhOC6H4CH2OH in aqueous solution gave rise to (6H)-dibenzo[b,d]pyran (I) in good yield.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

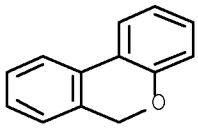
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 31 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1985:45857 CAPLUS Full-text
Document Number
102:45857
Title
Palladium-catalyzed cyclization of 2-substituted halogenoarenes by dehydrohalogenation
Author/Inventor
Ames, D. E.; Opalko, A.
Patent Assignee/Corporate Source
Chem. Dep., Chelsea Coll., London, SW3 6LX, UK
Source
Tetrahedron (1984), 40(10), 1919-25 CODEN: TETRAB; ISSN: 0040-4020
Document Type
Journal
Language
English
Abstract
Cyclodehydrohalogenation mediated by Pd catalysts and solvents with different bases (the most satisfactory system being Pd(OAc)2 in AcNMe2 with Na2CO3 as base) has been examined as a route to some heterocyclic systems. Whereas dehydrogenative cyclization processes require stoichiometric amts. of Pd(II) reagent, the present procedure involves only catalytic amts. (0.1M proportion, or less), of Pd compound The preparation of dibenzofuran, carbazole, fluorenone, phenanthridone, 6H-dibenzo[c,e][1,2]thiazine 5,5-dioxide (I), 6H-dibenzo[b,d]pyran and benzofuran[2,3-b]pyridine derivs. is described. The cyclization of 3-benzamido-2-chloropyridine (II) to 6-hydroxybenzo[c][1,5]naphthyridine (III) illustrates the regiospecificity of the process.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 32 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1984:622438 CAPLUS Full-text

Document Number
101:222438

Title
Hypolipidemic activity of some derivatives of 6H-dibenzo[b,d]pyran

Author/Inventor
Banzatti, C.; Branzoli, U.; Lovisolo, P. P.; Melloni, P.; Orsini, G.; Salvadori, P.

Patent Assignee/Corporate Source
Farmitalia Carlo Erba, Milan, 20159, Italy

Source
Arzneimittel-Forschung (1984), 34(8), 864-9 CODEN: ARZNAD; ISSN: 0004-4172

Document Type
Journal

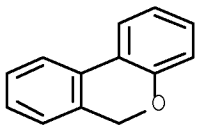
Language
English

Abstract
Twenty-four title compds. I (R = H or Cl; R1 = H, Me, Et, Ph, CH2OH; R2 = OH, CN, CO2R3; R3 = H, Et, heterocyclomethyl; n = 0-2) were prepared and tested for hypolipidemic activity. These compds. are among the most rigid structures related to clofibrate ever synthesized, which means they have very few possible conformations of relative stability compared with the many for clofibrate. 6H-2-Chloro-6-methyldibenzo[b,d]pyran-6-carboxylic acid [83359-43-7] showed very high hypolipidemic activity, being 12 times more potent than clofibrate in reducing plasma cholesterol concentration in the hypercholesterolemic rat and 11 times more potent in reducing plasma triglyceride concentration in the normolipemic rat.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 33 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1982:562823 CAPLUS Full-text

Document Number
97:162823

Title
Derivatives of 6-substituted 6H-dibenzo[b,d]pyran used as an antiulcer, immunomodulating and antiviral medicine

Author/Inventor
Melloni, Piero; Salvadori, Paolo; Lovisolo, Pier Paolo

Patent Assignee/Corporate Source
Farmitalia Carlo Erba S.p.A., Italy

Source
Fr. Demande, 85 pp. CODEN: FRXXBL

Document Type
Patent

Language
French

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2492378	A1	19820423	FR 1981-19685	19811020
FR 2492378	B1	19850628		
US 4463001	A	19840731	US 1981-307597	19811001
IL 64008	A	19860731	IL 1981-64008	19811006
AU 8176161	A	19820909	AU 1981-76161	19811008
AU 542121	B2	19850207		
ZA 8107002	A	19820929	ZA 1981-7002	19811009
FI 8103144	A	19820421	FI 1981-3144	19811012
FI 84824	B	19911015		
FI 84824	C	19920127		
GB 2091721	A	19820804	GB 1981-31290	19811016
GB 2091721	B	19840215		
DE 3141387	A1	19820812	DE 1981-3141387	19811017
DE 3141387	C2	19910502		
BE 890773	A1	19820419	BE 1981-206273	19811019
DK 8104613	A	19820421	DK 1981-4613	19811019
DK 154974	B	19890116		
DK 154974	C	19890612		
SE 8106167	A	19820602	SE 1981-6167	19811019
SE 452009	B	19871109		
SE 452009	C	19880218		
JP 57095981	A	19820615	JP 1981-165894	19811019
JP 01057114	B	19891204		
CH 651302	A5	19850913	CH 1981-6665	19811019
SU 1318163	A3	19870615	SU 1981-3346602	19811019
CA 1235703	A1	19880426	CA 1981-388273	19811019
NL 8104749	A	19820517	NL 1981-4749	19811020
NL 191562	B	19950516		
NL 191562	C	19950919		
AT 8104487	A	19850915	AT 1981-4487	19811020
AT 380245	B	19860425		

Abstract
Dibenzopyrans I [R = H, alkyl, hydroxyalkyl, alkanoyloxyalkyl; n = 0-3; R1 = H, OH, NH2; R2 = cyano, CO2H, esterified CO2H, (un)substituted amino or carbamoyl; heteroaryl; R3, R4, R5, R6, R7, and R8 (same or different) are H, halo, haloalkyl, aminoalkyl, NH2, NO2, (un)substituted ureido, OH, alkoxy, alkenyloxy] were prepared, and they exhibited anti-ulcer, anticholinergic, and anticholesteremic activity (formulations are given). I (n = 0, R2 = OH, R = R3 = R4 = R5 = R6 = R7 = R8 = H) was treated with SOCl2 and KCN to give I (n = 0, R2 = cyano, R = R3 = R4 = R5 = R6 = R7 = R8 = H).

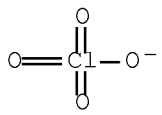
Hit Structure

CAS Registry Number
3541-47-7 CAPLUS

Chemical or Trade Name
Dibenzo[b,d]pyrylium, perchlorate (7CI, 8CI, 9CI) (CA INDEX NAME)

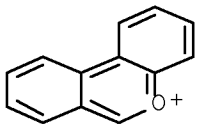
CM
1

CRN 14797-73-0
CMF Cl O4



CM
2

CRN 229-97-0
CMF C13 H9 O



L5 ANSWER 34 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1982:34311 CAPLUS Full-text

Document Number
96:34311

Title
Mechanisms of formation of [M-HCO]+ and [M-C6H5CO]+ ions from isomers of 1,4-benzodioxin derivatives

Author/Inventor
Bouchoux, Guy; Dagaut, Jacques

Patent Assignee/Corporate Source
Lab. Synth. Org., Ec. Polytech., Palaiseau, 91128, Fr.

Source
Organic Mass Spectrometry (1981), 16(6), 246-8 CODEN: ORMSBG; ISSN: 0030-493X

Document Type
Journal

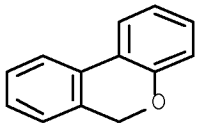
Language
English

Abstract
The benzodioxin derivs. I and II (R = H, Ph) interconvert prior to fragmentation at low internal energy. The mechanisms of the 2 major fragmentations (HCO and PhCO loss) were studied by kinetic energy-release determination and appearance-energy measurements. The fragment ions have a dibenzopyran structure.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 35 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1981:550314 CAPLUS Full-text

Document Number
95:150314

Title
The Pschorr cyclization of aromatic amines with tert-butyl thionitrate in nonaqueous media

Author/Inventor
Oae, Shigeru; Iida, Kazuyuki; Shinhama, Koichi; Takata, Toshikazu

Patent Assignee/Corporate Source
Dep. Chem., Univ. Tsukuba, Ibaraki, 305, Japan

Source
Bulletin of the Chemical Society of Japan (1981), 54(8), 2374-8 CODEN: BCSJA8; ISSN: 0009-2673

Document Type
Journal

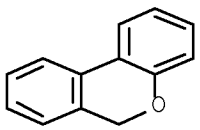
Language
English

Abstract
The Pschorr cyclization of various arylamines e.g. o-H2NC6H4OPh, with Me3CSNO2 under nonaq. conditions gave the corresponding cyclic products, e.g. I, in moderate yields. The same reaction also proceeded readily with p-MeC6H4SO2NO at room temperature Treatment of o-aminophenyl allyl ether or sulfide with Me3CSNO2 gave intramol. Meerwein arylation to the olefinic bond affording 3-chlorochroman or -thiochroman, though the yield was low. The plausible mechanism of the Pschorr cyclization with Me3CSNO2 is discussed.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 36 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1977:542135 CAPLUS Full-text

Document Number
87:142135

Title
Thermochemistry of some six-membered cyclic and polycyclic compounds related to coal

Author/Inventor

Shaw, Robert; Golden, David M.; Benson, Sidney W.

Patent Assignee/Corporate Source

Sunnyvale, CA, USA

Source

Journal of Physical Chemistry (1977), 81(18), 1716-29 CODEN: JPCHAX; ISSN: 0022-3654

Document Type

Journal

Language

English

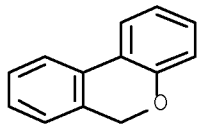
Abstract

Values are presented for thermochem. properties [ΔHf0298(g), S0298(g), Cp0300(g)] of some 6-membered cyclic and polycyclic compds. Classes of compds. included are (a) aromatic hydrocarbons containing from 1 to 4 rings, (b) hydroarom. hydrocarbons obtained by adding 1, 2, and 3 (and 4) mol of H2 to the aromatic hydrocarbons, and (c) oxygenated hydrocarbons obtained by substituting O for CH2 in some of the hydroarom. hydrocarbons. Many of the values have been estimated by application of group additivity and structural considerations.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

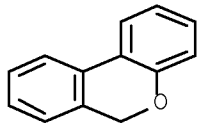
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 37 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1977:170601 CAPLUS Full-text
Document Number
86:170601
Title
Determination of the energy of highest occupied molecular orbitals of heteroorganic compounds using spectral data
Author/Inventor
Nechaev, E. A.
Patent Assignee/Corporate Source
Inst. Merzlotoved., Yakutsk, USSR
Source
Zhurnal Fizicheskoi Khimii (1977), 51(1), 30-4 CODEN: ZFKHA9; ISSN: 0044-4537
Document Type
Journal
Language
Russian
Abstract
Literature data were used to obtain a relation between the charge-transfer energy of donor-acceptor complexes and the energy (E) of the highest occupied MO of the donor. This relation was then used to calculate E for 91 compds. A linear relation between the ionization potential (I) and E was also found: I = 5.86 + 3.45 E.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

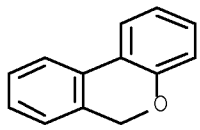
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 38 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1976:130124 CAPLUS Full-text
Document Number
84:130124
Title
Drugs derived from cannabinoids. 2. Basic esters of nitrogen and carbocyclic analogs
Author/Inventor
Razdan, Raj K.; Zitko Terris, B.; Pars, Harry G.; Plotnikoff, Nicholas P.; Dodge, Patrick W.; Dren, Anthony T.; Kyncl, Jaroslav; Somani, Peter
Patent Assignee/Corporate Source
Sharps Assoc., Cambridge, MA, USA
Source
Journal of Medicinal Chemistry (1976), 19(4), 454-61 CODEN: JMCMAR; ISSN: 0022-2623
Document Type
Journal
Language
English
Abstract
Of 25 basic esters of nitrogen and carbocyclic cannabinoid analogs pharmacol. tested in mice, rats, dogs, and cats, I [49637-08-3] was more potent than codeine phosphate [52-28-8] in the writhing, hot-plate, and tail flick tests, and II [58019-65-1] was very potent in the mouse audiogenic seizure test and was active in various anticonvulsant tests. Structure-activity relations were discussed.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)

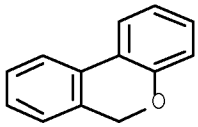


. L5 ANSWER 39 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1975:458601 CAPLUS Full-text
Document Number
83:58601
Title
6H-dibenzo[b,d]pyrans. I. Synthesis
Author/Inventor
Devlin, John P.
Patent Assignee/Corporate Source
Pharma Res. Canada Ltd., Pointe Claire, QC, Can.
Source
Canadian Journal of Chemistry (1975), 53(3), 343-9 CODEN: CJCHAG; ISSN: 0008-4042
Document Type
Journal
Language
English
Abstract
2',4'-Dihydroxy- and 2',6'-dihydroxybiphenyl-2-carboxylic acid lactones, e.g. I(x = o), were prepared from o-BrC6H4CO2H and dihydroxybenzenes. Grignard addition to or direct BF3.Et2O-NaBH4 reduction of these lactones yields resp. 6,6-substituted, e.g. I(x = Me2), or the 6,6-unsubstituted, e.g. I(x = H2), 6H-dibenzo[b,d]pyrans.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 40 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1974:132451 CAPLUS Full-text

Document Number
80:132451

Title
Rearrangements of organometallic compounds. X. Mechanism of 1,2-aryl migration in the Wittig rearrangement of α-metallated benzyl aryl ethers

Author/Inventor
Eisch, John J.; Kovacs, Csaba A.; Rhee, Sue-Goo

Patent Assignee/Corporate Source
Dep. Chem., Cathol. Univ. America, Washington, DC, USA

Source
Journal of Organometallic Chemistry (1974), 65(3), 289-301 CODEN: JORCAI; ISSN: 0022-328X

Document Type
Journal

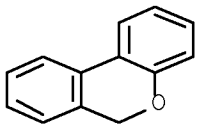
Language
English

Abstract
The mechanism of 1,2-aryl shifts in the Wittig rearrangement of α-metalated benzyl aryl ethers was investigated by the examination of the following ethers: PhOCH2Ph, p- and m-Me3CC6H4OCH2Ph, 2,4-Br(Me3C) C6H3OCH2Ph, and dibenzo[b,d]pyran. The failure to trap any aldehyde intermediate, the ease of rearrangement for the pyran, the lack of evidence for an aryne intermediate with the benzyl butyl ethers indicated that an intramol. pathway, in which radical pairs were generated and then collapsed to the isomeric carbinolate, was followed.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 41 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1973:69749 CAPLUS Full-text

Document Number
78:69749

Title
Fluorescent hapten-protein conjugates

Author/Inventor
Gross, Stanley Joseph

Source
Ger. Offen., 107 pp. CODEN: GWXXBX

Document Type
Patent

Language
German

Patent Information

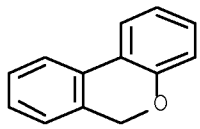
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2128517	A	19720629	DE 1971-2128517	19710608
GB 1364925	A	19740829	GB 1974-7824	19710604
FR 2113821	A5	19720630	FR 1971-21358	19710611
NL 7115795	A	19720518	NL 1971-15795	19711116
SE 7410067	A	19740805	SE 1974-10067	19740805
CA 1022923	A2	19771220	CA 1975-238611	19751027

Abstract
Procedures and intermediates for the preparation of outstanding antigens are described in addition to fluorescent hapten and antigen derivs. which are useful in fluorescent detns. The antigens are useful in the formation of antibodies which are absolutely specific for the metabolic products corresponding to the hapten moiety of the new conjugate and are able in 10-20 pg amts. to detect and characterize steroids, catechol amines, or peptides in body or cell fluids. The steroid-protein antigens (I) are prepared by conversion of the azasteroid of a steroid with an unsatd. A ring to the carbodiimide, and conjugation with a suitable protein such as bovine serum albumin, keyhole limpet hemocyanin (KLH), or human γ-globulin, as in the preparation of 4-(17'β-estradiol-4'-azo)benzoyl-KLH. Other haptens or intact protein antigens can be obtained in the reaction sequence provided that the hapten moiety contains an unsatd. 5- or 6-ring as in catechol amines, or a compound containing the histidine, tyrosine, or tryptophan structures. I form in the living blood stream antibodies which are immunol. specific for the derivative used in the production of the antigen and which are characterized by the following reactions: double diffusion in agar or immuno-electrophoresis, quant. precipitin expts., hapten inhibition, and fluorescence quenching and fluorescence intensification of hydrazo and amino derivs. prepared by mild reduction of the corresponding azo compds.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 42 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1972:59377 CAPLUS Full-text

Document Number
76:59377

Title
Persulfate oxidation of carboxylic acids. IV. Oxidation of (o-arylphenoxy)acetic acids

Author/Inventor
Dewar, P. S.; Forrester, A. R.; Thomson, R. H.

Patent Assignee/Corporate Source
Dep. Chem., Univ. Aberdeen, Aberdeen, UK

Source
Journal of the Chemical Society [Section] C: Organic (1971), (23), 3950-9 CODEN: JSOOAX; ISSN: 0022-4952

Document Type
Journal

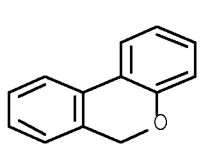
Language
English

Abstract
Oxidation of o-PhC6H4OCR2CO2H (I, e.g. R=H, Me) with K2S2O8 gave o-PhC6H4OCR2 radicals which cyclized at C-2' to 6,6-dialkyl-6H-dibenzo[b,d]pyrans and dimeric compds., e.g. 6a,6a',-9,9'-tetrahydro-9,9'-bi[6H-dibenzo[b,d]pyran] (II). Pyrolysis of II gave 6H-dibenzo[b,d]pyran, o-PhC6H4O(CH2)2OC6H4Ph-o, and 9,9'-bi[6H-dibenzo[b,d]pyran]. Oxidation of dibenzo[b,d]-pyran with 2,3-dichloro-5,6-dicyanobenzoquinone gave benzocoumarin and di(6H-dibenzo[b,d]pyran-6-yl) ether. Oxidation of [o-(1-naphthyl)phenoxy]acetic acids gave spiro dimers and a low yield of pyran. ArOCH+2 cations produced in oxidation of I in the presence of excess Cu(II) ions did not cyclize but underwent solvolysis to phenols. Oxidation of (2,2'-biphenylenedioxy)diacetic acid resulted in slight double cyclization to a dipyran, the main product being a dimer of spiro[benzofuran-3(2H),1'-[3,5]cyclohexadien]-2'-one (III) formed by cyclization at C-1'. When heated the dimer equilibrated with III and 3 other isomeric dimers. III was trapped by Diels-Alder addition with maleic anhydride but not with tetracyanoethylene which gave rearrangement to 2,2'-(methylenedioxy)biphenyl.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 43 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

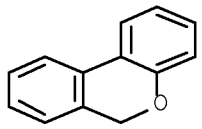
Accession Number
1970:465754 CAPLUS Full-text

Document Number
73:65754

Title
New reactions with persulfate: oxidation of o-phenylphenoxyacetic acids
Author/Inventor
Dewar, P. S.; Forrester, Alexander R.; Thomson, Ronald H.
Patent Assignee/Corporate Source
Dep. Chem., Univ. Aberdeen, Old Aberdeen, UK
Source
Journal of the Chemical Society [Section] D: Chemical Communications (1970), (14), 850 CODEN: CCJDAO; ISSN: 0577-6171
Document Type
Journal
Language
English
Abstract
S2O82- oxidation of o-phenylphenoxyacetic acid to the o-phenylphenoxymethyl radicals cyclized it intramol. to give cyclohexadienyl radicals which were either oxidized to dibenzopyran and a related bis-acetal or dimerized.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

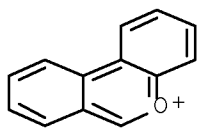
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 44 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1969:32935 CAPLUS Full-text
Document Number
70:32935
Title
Pariser-Parr-Pople calculations and comparison of electronic spectra of iso-π-electronic oxygen, nitrogen, sulfur, and selenium heterocycles
Author/Inventor
Fabian, Juergen; Mehlhorn, Achim; Zahradnik, Rudolf
Patent Assignee/Corporate Source
Tech. Univ. Dresden, Dresden, Fed. Rep. Ger.
Source
Theoretica Chimica Acta (1968), 12(3), 247-55 CODEN: TCHAAM; ISSN: 0040-5744
Document Type
Journal
Language
German
Abstract
Heterocyclic compds. (42) formally derived from alternant or nonalternant hydrocarbons by replacing a C:C group by an O, N, S, or Se atom, are studied by the Pariser-Parr-Pople-type of calcn. By means of these results the near uv and visible spectra are described. The S and the Se atoms are treated in the L.C.A.O.-M.O. method by using the p-model. In most cases spectral features are not only well reproduced, but interrelations of the spectra of iso-π-electronic compds., possessing analogous structures, are interpreted, too. On calculating cationic N heterocycles by using parameters of pyrrol type N results are unsatisfactory.
Hit Structure

CAS Registry Number
229-97-0 CAPLUS

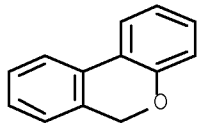
Chemical or Trade Name
Dibenzo[b,d]pyrylium (8CI, 9CI) (CA INDEX NAME)



. L5 ANSWER 45 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1969:3740 CAPLUS Full-text
Document Number
70:3740
Title
Two preparations of spirodibenzopyran
Author/Inventor
Chenault, Jacques; Rollin, Patrick; Setton, Ralph
Patent Assignee/Corporate Source
Lab. Chim. IV, Fac. Sci., Orleans-La Source, Fr.
Source
Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1968), 267(5), 405-7 CODEN: CHDCAQ; ISSN: 0567-6541
Document Type
Journal
Language
French
Abstract
6-Spirocyclohexane-1,2,3,4,7,8,9,10-octahydrodibenzo[b,d]pyran (I), which is prepared by the dehydration of cyclohexanone trimer, is heated with S at 220° to give spirocyclohexane-6-dibenzo[b,d]pyran (II). Cyclohexanone is treated with the Grignard prepared from o-(o-MeOC6H4)C6H4Br and the product is dehydrated to give III; III is heated with HI to give II.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



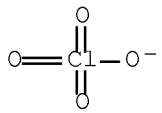
. L5 ANSWER 46 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1965:471814 CAPLUS Full-text
Document Number
63:71814
Title
Heteroaromatic cations. IV. Hydrolysis of chromylium, thiachromylium, and selenachromylium perchlorates
Author/Inventor
Degani, Jacopo; Fochi, Rita; Spunta, Giuseppe
Patent Assignee/Corporate Source
Univ. Bologna, Italy
Source
Bollettino Scientifico della Facolta di Chimica Industriale di Bologna (1965), 23(2-3), 151-64 CODEN: BSFCAY; ISSN: 0366-3205
Document Type
Journal
Language
Italian
Abstract
cf. CA 63, 8137e. Study of the hydrolysis of chromylium, thiachromylium, and selenachromylium perchlorates at various pH's suggests that α-pseudo bases (I, X = O, S, Se) are formed first followed by II or III depending on the medium. II (X = O, S) are converted to III in alkali, and are oxidized with MnO2 to the coumarin or thiocoumarin. The product obtained by hydrolysis of I (X = Se) in 0.001N H2SO4 oxidized with MnO2 in CHCl3 gives 2-benzoselenophenecarboxaldehyde (IV). Uv spectra are given for the various intermediates. Chromylium perchlorate (2 g.) in CH3CN and 20 cc. 0.1N H2SO4 was stirred for a few minutes, extracted with Et2O, dried, concentrated, and crystallized from ligroine to give II (X = O), m. 159-61°. II (X = S) was prepared similarly in 0.1N Na2CO3, m. 156-8° (ligroine). Selenachromylium perchlorate (10 g.) in 100 cc. of 0.001N H2SO4 stirred a few minutes, extracted with Et2O, dried, concentrated, dissolved in CHCl3 and refluxed with 15 g. MnO2 gave IV, m. 78-9° (ligroine).
Hit Structure

CAS Registry Number
3541-47-7 CAPLUS

Chemical or Trade Name
Dibenzo[b,d]pyrylium, perchlorate (7CI, 8CI, 9CI) (CA INDEX NAME)

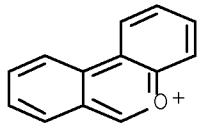
CM
1

CRN 14797-73-0
CMF Cl O4



CM
2

CRN 229-97-0
CMF C13 H9 O



. L5 ANSWER 47 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number

1958:88056 CAPLUS Full-text

Document Number
52:88056

Title
Dibenzo[b,d]pyrans and related products

Author/Inventor
Cavill, G. W. K.; Dean, F. M.; Keenan, J. F. E.; McGookin, A.; Robertson, Alexander; Smith, G. B.

Patent Assignee/Corporate Source
Univ. Liverpool, UK

Source
Journal of the Chemical Society (1958) 1544-9 CODEN: JCSOA9; ISSN: 0368-1769

Document Type
Journal

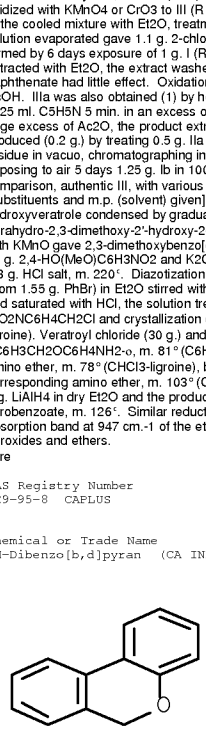
Language
Unavailable

Abstract
cf. C.A. 44, 10706g. Aerial and permanganate oxidation of substituted 6H-dibenzo-[b,d]pyrans unsubstituted in the 6-position (I, R = H) gave peroxides (II, R = H) and 2'-hydroxy-2-biphenylcarboxylic acid δ-lactones (III, R = H), resp. I were prepared by Pschorr ring-closure of the corresponding o-aminophenyl benzyl ethers, 4,2-R(H2N)C6H3OCH2Ph (IV) (R = H) and by reduction of III (R = Cl) (IIIa) to 5-chloro-2-hydroxy-2'-(hydroxymethyl)biphenyl (V), conversion to 2'-bromomethyl-5-chloro-2-hydroxybiphenyl (VI) and cyclization to I (R = Cl) (Ia). IV.HCl (20 g.) in 400 ml. 2N H2SO4 at 0° diazotized by addition of 6 g. NaNO2, in 25 ml. H2O in 15 min., the solution kept 30 min., the filtered solution stirred rapidly 4 hrs. with 4 g. Cu bronze, more Cu added at intervals to complete the reaction, the mixture filtered, the product extracted with Et2O, the brown oil chromatographed from petr. ether on Al2O3 and eluted, the fraction evaporated and the colorless oil (7.5 g.) distilled gave I (R = H), b2.5 138-41°. I (R = H) (1 g.) in 20 ml. AcOH heated 1 hr. on a steam bath with 1 g. CrO3, the cooled mixture extracted with Et2O, the extract washed with dilute alkali and H2O, and the dried extract evaporated gave 0.4 g. III (R = H), m. 95° (C6H6-ligroine), also produced by oxidation of 1 g. I (R = H) with 1.5 g. KMnO4 in 100 ml. boiling Me2CO. Diazotization of 20 g. IV.HCl (R = Cl) gave 8 g. Ia, m. 47° (MeOH), oxidized as above to IIIa, m. 181° (AcOH), also prepared by gently warming an intimate mixture of 40 g. (o-HO2CC6H4N: N)2SO4 and 40 g. p-ClC6H4OH in a rotating flask and adding 40 g. p-ClC6H4OH with intensified heating to complete evolution of N, removing acidic materials with aqueous NaOH, and crystallizing from AcOH. IIIa (6 g.) in 1500 ml. dry Et2O added slowly in 1 hr. with vigorous stirring to 2 g. LiAlH4 in a min. of Et2O, the mixture decomposed with moist Et2O and dilute H2SO4, the organic layer dried and evaporated, and the product crystallized (C6H6-ligroine) gave 5.7 g. V, m. 104-6°; di-p-nitrobenzoate, m. 122-3°. V (5 g.) in 120 ml. C6H6 saturated with dry HBr and the solution washed free from acid, dried (Na2SO4), and evaporated yielded 4.75 g. VI, m. 85-7° (petr. ether); phenylurethan, m. 150°. VI (3.0 g.) in a min. of MeOH treated with 3 ml. N KOH in MeOH, the filtered solution extracted with Et2O and washed with aqueous KOH and H2O, and the dried extract evaporated in vacuo gave Ia, m. 47° (petr. ether). Me2CO (200 ml.) refluxed 12 hrs. with 30 g. o-O2NC6H4OH, 27 g. p-MeC6H4CH2C1, 10 g. KI, and 60 g. anhydrous K2CO3 and the oily product triturated with ligroine gave 22 g. p-MeC6H4CH2OC6H4NO2-o, m. 68° (CHCl3-ligroine), reduced with Na polysulfide to yield 71% of the corresponding amino compound, converted through the HCl salt (10 g.) and the diazonium salt to give 9-methyldibenzo[b,d]pyran, b0.01 98-101°. Oxidation of the pyran with KMnO4 or CrO3 gave 55% of the corresponding lactone, m. 164° (alc.). Alc. (300 ml.) containing 22 g. (o-O2NC6H4CH2)(p-MeC6H4)O, 48 g. Na2S, and 8 g. S refluxed 6-7 hrs., the product worked up, the amine in Et2O saturated with dry HCl, and the precipitated salt crystallized (AcOH) gave 19 g. o-H2NC6H4CH2OC6H4Me-p.HCl, m. 202°. Diazotization of 15 g. HCl salt and treatment with Cu bronze gave 5 g. I (R = Me) (Ib), b1.0 122-4°, oxidized with KMnO4 or CrO3 to III (R = Me) (IIIb), m. 133° (MeOH). IIIb was also obtained by portionwise addition of 18 g. (o-HO2CC6H4N:N)2SO4 to p-MeC6H4OH in a gently warmed and constantly rotated flask, extraction of the cooled mixture with Et2O, treatment with aqueous NaOH, evaporation of the dried extract, and crystallization (MeOH) of the residue. PhMgBr (from 4.5 g. PhBr) treated with 1.0 g. IIIa in 50 ml. C6H6 and the filtered solution evaporated gave 1.1 g. 2-chloro-6,6-diphenyldibenzopyran, m. 197° (alc.), insol. in alkali. I (R = H) (1 g.) in 50 ml. CHCl3 ozonized 30 min. and the solvent evaporated yielded 0.08 g. II (R = H), m. 186° (AcOH), also formed by 6 days exposure of 1 g. I (R = H) in AcOH to the air. Ia (1.5 g.) in 70 ml. AcOH exposed 8 days gave 1.05 g. II (R = Cl) (IIa), m. 196° (decomposition) (EtOAc). The residual AcOH solution diluted with H2O and extracted with Et2O, the extract washed with aqueous NaOH, and the dried extract evaporated gave 0.15 g. IIIa. The addition of 3 ml. BzH doubled the rate of the aerial oxidation but addition of Me3COOH or cobalt naphthenate had little effect. Oxidation of Ia with H2O2 in AcOH yielded 18% IIIa. Ia in AcOH was unchanged on storage 28 days under N but gave 0.3 g. IIIa when 0.5 g. Ia was heated 50 hrs. at 120° with BzH in 30 ml. AcOH. IIIa was also obtained (1) by heating 0.5 g. IIa in EtOCH2CH2OEt 6 hrs. with 0.1 g. LiAlH4 in 25 ml. glycol ether at 120°, decomposing carefully, and dissolving in H2O and dilute H2SO4, and (2) by refluxing 0.1 g. IIa in 25 ml. C5H5N 5 min. in an excess of Ac2O, isolating the product conventionally, and purifying by chromatography from C6H6 on Al2O3. IIa (0.5 g.) in 80 ml. boiling AcOH treated gradually 4 hrs. with 0.5 g. Zn dust and a large excess of Ac2O, the product extracted with Et2O, the washed and dried extract evaporated, and the residue triturated with C6H6-ligroine gave 0.05 g. bis(2-chlorodibenzopyran-6-yl) ether (VII), m. 231° (EtOAc), also produced (0.2 g.) by treating 0.5 g. IIa with 20 ml. H2SO4, pouring the brown solution onto ice, extracting with Et2O, washing the extract with aqueous alkali, evaporating and taking up in C6H6, evaporating and desiccating the residue in vacuo, chromatographing in C6H6 on Al2O3, and evaporating the eluate. Ib (1 g.) ozonized 30 min. in 20 ml. CHCl3 gave 0.05 g. II (R = Me) (IIb), m. 185° (decomposition) (C6H6), also produced (0.87 g.) by exposing to air 5 days 1.25 g. Ib in 100 ml. AcOH, together with 0.07 g. IIIb. Treatment of 0.5 g. IIb with 20 ml. H2SO4 and working up the mixture as above gave 0.17 g. bis(2-methyldibenzopyran-6-yl) ether, m. 200°. For comparison, authentic III, with various substituent groups, were prepared by a modification of Cahn's method (C.A. 28, 1519), using (o-HO2CC6H4N:N)2SO4 and p-substituted phenols to avoid formation of isomerides [substituents and m.p. (solvent) given]: 4-MeO, 2-Me, 207-8° (alc.); 8-Br, 2-Me, 172° (alc.); 8,10-Br2, 2-Me, 184° (alc.); 2-MeO, 166-8° (MeOH); 8-iso-Pr, 128-9° (MeOH). Et 2-oxocyclohexanecarboxylate (1.1 g.) and 1 g. 4-hydroxyveratrole condensed by gradual addition of 2 ml. H2SO4 at 0° according to Ghosh, et al. (C.A. 34, 79076), the mixture kept 24 hrs. and poured onto ice, and the solid product crystallized (alc.) gave 0.6 g. 7,8,9,10-tetrahydro-2,3-dimethoxy-2'-hydroxy-2-biphenylcarboxylic acid δ-lactone (IIIc), m. 182°. The diazonium salt from 4.7 g. 3,4-(MeO)2C6H3OCH2C6H4NH2-p decomposed and the oily 2,3-dimethoxydibenzopyran oxidized directly with KMnO gave 2,3-dimethoxybenzo[c]coumarin (IIId), m. 177° (MeOH). Dehydrogenation of 0.2 g. IIIc with Pd-C in N at 320° and the product sublimed onto a cold finger also gave 0.1 g. IIId. PhCH2Br (8 ml.) was boiled with 20 g. 2,4-HO(MeO)C6H3NO2 and K2CO3 in Me2CO and the product, (21 g.) 5,2-MeO(O2N)C6H3OCH2Ph, m. 73° (ligroine) reduced with Na2S and S to the corresponding 5,2-MeO(H2N)C6H3OCH2Ph and converted to give 3.3 g. HCl salt, m. 220°. Diazotization of the salt (3 g.) to 3-methoxydibenzopyran and direct oxidation of the oily product with KMnO4 gave 1.4 g. III (R = H) 3-methoxy derivative, m. 143° (cf. Hurtley, C.A. 27, 77). PhMgBr (from 1.55 g. PhBr) in Et2O stirred with dropwise addition of 1.0 g. IIIa in dry Et2O, the mixture poured onto ice and dilute HCl, the organic layer washed free from acid, the dry solution distilled, the oily residue taken up in Et2O and saturated with HCl, the solution treated with 60% HClO4, and the salt crystallized (AcOH) gave 2-chloro-6-phenyl-6-dibenzopyranyl perchlorate, m. 250° (explosive above m.p.). Treatment of 10 g. 4-hydroxyveratrole with 2-O2NC6H4CH2Cl and crystallization (C6H6) gave 9 g. 3,4-(MeO)2C6H3OCH2C6H4NO2-o, m. 109°. Reduction of 11.6 g. nitro compound with Na2S and S yielded 2.5 g. 3,4-(MeO)2C6H3OC6H4NH2-o, m. 71° (C6H6-ligroine). Veratroyl chloride (30 g.) and 25 g. o-O2NC6H4OH gave 32 g. 3,4-(MeO)2C6H3CH2OC6H4NO2-o, m. 85° (C6H6-ligroine). The ether (20 g.) was reduced with Na2S and S to yield 14 g. 3,4-(MeO)2C6H3CH2OC6H4NH2-o, m. 81° (C6H6); Ac derivative, m. 103°. Similarly 13.5 g. 4,5,1,2-HO(O2N)C6H2(OMe)2 gave 16 g. 2,4,5-O2N(MeO)2C6H2OCH2Ph, m. 143° (EtOAc), reduced to yield 45% of the corresponding amino ether, m. 78° (CHCl3-ligroine), becoming pink on exposure to air. Interaction of 20 g. o-O2NC6H4OH and 20 g. 4-MeOC6H4CH2Cl gave 13 g. p-MeOC6H4CH2OC6H4NO2-o, m. 96° (ligroine), reduced to the corresponding amino ether, m. 103° (CHCl3-ligroine); Ac derivative, m. 126°. Dry Et2O (300 ml.) containing 11.5 g. 7,8,9,10-tetrahydro-3-methoxy-2'-hydroxy-2-biphenylcarboxylic acid δ-lactone added dropwise with stirring to 4 g. LiAlH4 in dry Et2O and the product (8.5 g.) crystallized (ligroine-MeOH) gave 3', 4', 5',6'-tetrahydro-2-hydroxy-2' -hydroxymethyl-4-methoxybiphenyl, m. 81°, soluble in aqueous NaOH and giving a violet FeCl3 reaction; di-p-nitrobenzoate, m. 126°. Similar reduction of 6 g. IIIb with LiAlH4 gave 5.5 g. 2-hydroxy-2'-hydroxymethyl-5-methylbiphenyl, m. 94-5° (C6H6); di-p-nitrobenzoate, m. 137-8°. The presence of a very broad and strong infrared absorption band at 947 cm.-1 of the ethers from Ia and Ib which is resolved in the spectra of IIa and IIb into 2 strong bands at 963 and 945 cm.-1 was accepted as supporting evidence for the structures assigned to the peroxides and ethers.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 48 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1957:39250 CAPLUS Full-text

Document Number
51:39250

Title
4-Styrylcoumarins in diene synthesis. II

Author/Inventor
Mustafa, Ahmed; Kamel, Mohamed; Allam, Mohamed Aly

Patent Assignee/Corporate Source
Cairo Univ., Giza, Egypt

Source
Journal of the American Chemical Society (1956), 78, 4692-4 CODEN: JACSAT; ISSN: 0002-7863

Document Type
Journal

Language
Unavailable

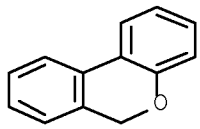
Abstract
cf. C.A. 50, 2609h. Derivs. of 6H-dibenzo[b,d]pyran (I) and of 5(6H)-oxachrysene (II) are prepared from 4-styrylcoumarins in the Diels-Alder reaction. By adapting Dey and Row's method (C.A. 19, 823) for preparing coumarin-4-acetic acid, 65% 6-methylcoumarin-4-acetic acid (III) was obtained. Condensation of the appropriate RCHO with III in the presence of pyridine and piperidine (M. and K., loc. cit.) produced the following new 4-styryl-6-methylcoumarins (IV), RCH:CHC:CHC(:O)OC:CCH:CMeCH:CH (R, m.p., % yield, crystallization solvent, and color in H2SO4 given): Ph, 133°, 40, petr. ether (b. 80-100°), yellow; p-MeOC6H4, 164°, 45, petr. ether (b. 100-120°), orange-red; o-MeOC6H4, 194°, 60, AcOH, orange-red; o-ClC6H4, 210°, 50, AcOH, yellow; 4,3-HO(MeO)C6H3, 150°, 30, petr. ether (b. 80-100°), orange-red; 3,4-CH2O2:C6H3, 218°, 20, C6H6, orange-red changing to brown. Similarly were prepared the 4-styryl-7-methylcoumarins (V) [o-MeOC6H4, 145°, 60, C6H6-petr. ether (b. 40-60°), orange; o-ClC6H4, 168°, 35, EtOH, yellow] and the 4-styryl-7,8-benzocoumarins (VI) [o-MeOC6H4 178°, 65, AcOH, orange; o-ClC6H4, 210°, 50, AcOH, orange]. In general, IV, V, and VI are soluble in CHCl3, hot C6H6, and xylene but sparingly soluble in petr. ether (b. 50-60°); their yellow solns. in CCl4 decolorize Br in CCl4. The appropriate IV, V, and VI (0.5 g.), refluxed in dry xylene with 1 g. maleic anhydride (M. and K., loc. cit.), resp., yielded the adducts VII (Y = Me, Z = H)(VIIa), VII (Y = H, Z = Me)(VIII) (both derivs. of I), and IX (derivs. of II), which in general were sparingly soluble in C6H6 and petr. ether (b. 60-80°). Listed are R, the adduct, hrs. of refluxing, solvent for crystallization, m.p., % yield, and color with H2SO4: Ph, VIIa, 5, Ac2O, 194°, 50, none; p-MeOC6H4, VIIa, 4, Ac2O, 238°, 78, none; o-MeOC6H4, VIIa, 6, xylene, 249°, 85, yellow; Ph, VIII, 4, Ac2O, 250°, 70, pale yellow; o-MeOC6H4, VIII, 7, Ac2O, 244°, 90, yellow-brown; o-MeOC6H4, IX, 6, Ac2O, 321°, 80, yellow (acquires deep green fluorescence); o-ClC6H4, IX, 8, PhNO2, 300°, 75, yellow (acquires deep green fluorescence). Refluxing the appropriate IV, V, or VI (0.5 g.) in 20 ml. dry xylene with 0.8 g. Ar-phenyl- (X), N-p-tolyl- (XI), or N-2,4-dimethylphenylmaleimide (XII) resulted in almost complete discharge of the yellow color of the solution and separation of the corresponding adducts, imides corresponding to VIIa, VIII, or IX. The styrylcoumarin used, the maleimide used, R, hrs. of refluxing, crystallization solvent, m.p., % yield, and color of adduct with H2SO4 are given: IV, X, Ph, 4, dioxane, 274°, 90, pale yellow; IV, X, p-MeOC6H4, 5, PhNO2, 296°, 92, none; IV, X, o-MeOC6H4, 6, PhOEt, 215°, 95, green; V, X, Ph, 5, C6H6, 282°, 85, none; V, X, o-MeOC6H4, 10, C6H6-Et2O, 186°, 40, yellow; VI, X, o-MeOC6H4, 8, xylene, 215°, 70, yellow (acquires green fluorescence); IV, XI, Ph, 5,

PhNO2, 214°, 80, none; IV, XI, p-MeOC6H4, 4, PhNO2, 276°, 90, none; IV, XI, o-MeOC6H4, 12, C6H6, 198°, 40, none; V, XI, Ph, 5, PhOEt, 286°, 82, none; VI, XI, o-MeOC6H4, 6, PhOEt, 234-5°, 60, orange (turns yellow and acquires green fluorescence); IV, XII, Ph, 5, CHCl3-petr. ether (b. 40-60°), 264°, 90, pale yellow; IV, XII, p-MeOC6H4, 6, dioxane, 296°, 95, brown; VI, XII, Ph, 4, CHCl3, 330°, 93, yellow. The adducts obtained by these Diels-Alder syntheses are practically colorless and are insol. in alkali.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 49 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1956:12392 CAPLUS Full-text

Document Number
50:12392

Title
4-Styrylcoumarins and 2,3-dimethylquinoxaline in diene syntheses

Author/Inventor
Mustafa, Ahmed; Kamel, Mohamed

Patent Assignee/Corporate Source
Cairo Univ., Egypt

Source
Journal of the American Chemical Society (1955), 77, 1828-31 CODEN: JACSAT; ISSN: 0002-7863

Document Type
Journal

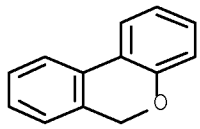
Language
Unavailable

Abstract
Derivs. of 6H-dibenzo[b,d] pyran (I), 5(6H)-oxachrysene (II) and hexahydrophenazine (III or IV) may be obtained from 4-styrylcoumarins (V) and 2,3-dimethylquinoxaline (VI) in the Diels-Alder reactions. An improved method for the preparation of the V, in satisfactory yields, is described. The appropriate coumarin-4-acetic acid (0.02 mol) and 0.03 mol aldehyde in 30 cc. dry pyridine treated with 10 drops piperidine, the mixture heated gradually at 125-30° (bath temperature), kept 6 h. at that temperature, cooled, diluted dropwise with H2O to beginning turbidity, refrigerated 0.5 h., and filtered, and the filter residue washed with about 30 cc. cold EtOH and recrystd. from a suitable solvent gave the corresponding 4-(β-substituted styryl)-7-methylcoumarins (substituent, m.p., % yield, and color with H2SO4 given): Ph (VII), 130-1° (from EtOH), 33, yellow-green; p-MeC6H4 (VIII), 186-7°, 45, orange-red; 3,4-CH2O2C6H3, 208°, 45, brown; and the following 4-(β-substituted styryl)-7,8-benzocoumarins: Ph (IX), 176°, 62, orange-red; p-MeC6H4 (X), 212-13°, 65, orange-red; 4,3-HO(MeO)C6H3 (XI), 212, 65, brown; 3,4-CH2O2C6H3, 196°, 45, brown; all compds. were recrystd. from glacial AcOH except VII; they were in general soluble in CHCl3, hot C6H6, and xylene, but were sparingly soluble in petr. ether; their yellow solns. in CCl4 decolorized Br in CCl4. The appropriate V (0.5 g.) and 1 g. maleic anhydride in 20 cc. dry xylene refluxed for a certain period of time, and the resulting crystalline colorless solid washed with about 20 cc. cold dry C6H6 and crystallized from a suitable solvent gave the corresponding adduct (derivative of I) of structure XII (R, m.p., % yield, reaction time in hrs., and color with H2SO4 given): p-MeOC6H4, 248° (from xylene), 92, 3, none; p-HOC6H4, 322° (from PhNO2), 81, 3, none; and the 7,8-benzocoumarin analogs: Ph, 268° (from PhNO2) 90, 5, yellow; p-MeOC6H4, 274° (from Ac2O), 94, 2, yellow-green; 4,3-HO(MeO)C6H3, 260° (from glacial AcOH), 71, 3, yellow; all products melted with decomposition IX (0.66 g.) in 24 cc. MeOH containing 1 g. NaOH refluxed 15 min., filtered while hot, decomposed with ice-cold dilute HCl, and filtered, and the deposit recrystd. after 1 h. from EtOH gave 6a,7,8,9-tetrahydro-6-oxo-9-(4-methoxyphenyl)- 5(6H)-oxachrysene-7,8-dicarboxylic acid (XIII), m. 266° (decomposition) (from EtOH), which was soluble in aqueous NaHCO3. XIII (0.5 g.) in 10 cc. Ac2O refluxed 4 h. gave VIII. p-MeO derivative of IX (0.5 g.), 1 g. maleic acid, and 30 cc. dry xylene refluxed 6 h. and the resulting colorless crystals recrystd. from EtOH yielded about 90% XIII, m. 266° (dccompn.). The appropriate V (0.5 g.) and 0.8 g. N-phenylmaleimide (or p-tolylmaleimide) in 20 cc. dry xylene refluxed for a certain period of time gave the corresponding XIV. In this manner were prepared the following XIV from 7-methyl-4-styrylcoumarin derivs. (derivs. of II) (R, R', m.p., % yield, reaction time in hrs., and color in H2SO4 given): p-MeOC6H4, Ph, 305° (from CHCl3), 80, 3, none; p-HOC6H4, Ph, 322° (from xylene), 62, 3, none; 4,3-HO(MeO)C6H3, Ph, 272° (from PhNO2), 60, 4, pale yellow; p-MeOC6H4, p-MeC6H4, 270-1° (from dioxane), 81, 4, yellow; and the following 7,8-benzo-4-styrylcoumarin derivs. of structure XIV: Ph, Ph, 308° (from xylene), 92, 5, yellow; p-MeC6H4, Ph, 312° (from xylene), 89, 5, yellow; p-MeOC6H4, Ph, 318-19° (from PhNO2), 95, 3, yellow; 4,3-HO(MeO)C6H3, Ph, 296° (from xylene), 62, 4, green-yellow; Ph, p-MeC6H4, 286° (from xylene), 84, 4, yellow-green; p-MeC6H4, p-MeC6H4, 304° (from xylene), 90, 3, pale yellow; p-MeOC6H4, p-MeC6H4, 308° (from dioxane), 87, 3, yellow; 4,3-HO(MeO)C6H3, p-MeC6H4, 290° (from xylene), 63, 3, yellow. VI (0.5 g.) and 0.5 g. N-phenylmaleimide refluxed 6 h., the mixture allowed to stand overnight and evaporated, and the residue recrystd. from C6H6-petr. ether gave 0.12 g. III (or IV), m. 184°, it was easily soluble in C6H6 and xylene, sparingly soluble in petr. ether, and gave a yellow color with concentrated H2SO4.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 50 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1953:41675 CAPLUS Full-text

Document Number
47:41675

Title
Bacteriostatic action of several furan derivatives. I. Fungistatic action for fungi growing on tobacco leaves

Author/Inventor
Sasaki, Yuji; Hattori, Satohiko

Patent Assignee/Corporate Source
Hokkaido Univ., Sapporo

Source
Nippon Nogei Kagaku Kaishi (1952), Volume Date 1951-1952, 25, 381-2 CODEN: NNKKAA; ISSN: 0002-1407

Document Type
Journal

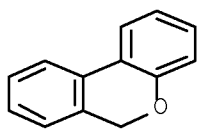
Language
Unavailable

Abstract
Fungistatic activity of vapors of various organic compds. (alcs., acids, aldehydes, esters, and others) was tested against fungi growing on tobacco leaves. Among these, AmOH, BzOH, valeraldehyde, vanillin, 2-furaldehyde (I), citronellal, and heliotropin showed relatively high activities, and I was the most effective.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



. L5 ANSWER 51 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1953:41674 CAPLUS Full-text

Document Number
47:41674

Title
Antibacterial activity of some organic compounds in vitro. VI. Antibacterial activity of diphenyl ethers and related compounds on Mycobacterium tuberculosis, Micrococcus pyogenes var. aureus, and Escherichia coli

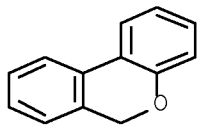
Author/Inventor
Tomita, Masao; Watanabe, Waichi

Patent Assignee/Corporate Source
Univ. Kyoto

Source
Yakugaku Zasshi (1953), 73, 209-11 CODEN: YKKZAJ; ISSN: 0031-6903
Document Type
Journal
Language
Unavailable
Abstract
Effective dilns. (1000 dilution = 1) to inhibit the growth of Mycobacterium tuberculosis, M. pyogenes var. aureus, and E. coli, resp., were tested in the following: 3,6-(NaO)2C6H3OPh, 4, 8, 8; 3,5-(NaO)2C6H3OPh, 16, 8, 4; 6-NaOC6H4OC6H4ONa-4, 8, 8, 8; 6-MeOC6H4OC6H4OMe-3, all <8; 6-MeOC6H4OC6H4OMe-4, <7, <6, <6; (3-MeOC6H4)2O, <8, <7, <7; 3-MeOC6H4OC6H4OMe-4, all <6; 6-MeOC6H4OC6H4OMe-6, <9, <8, <8; 6-NaO2CC6H4OC6H4ONa, <2, <1, <1; 6-NaO2CC6H4OC6H4OMe-6, 1, <1, <1; 5-PhOC9H6N, <18, <14, <14; 7-phenoxy-1,2,3,4-tetrahydroquinoline (I), all <20; 8-PhO analog of I, <22, <12, <12; 1-methyl-8-phenoxy-1,2,3,4-tetrahydroquinoline, all <7; 6,7-dimethoxy-8-(p-phenoxybenzyl)-1,2,3,4-tetrahydroisoquinoline, 8, -, -; (4-ClH2CC6H4)2O, <12, <10, <10; PhOC6H4CH2CONH2-p, 20, 20, <10; 6-HOH2CC6H4C6H4ONa-6, <1, 2, 4; 6-BrH2CC6H4C6H4ONa-6, 1, 4, 4; 6-methoxy-7-hydroxy-1-(p-methoxybenzyl)-1,2,3,4-tetrahydroisoquinoline- HCl, 5, <5, <5; dauricine-HCl, all <1; depsidone, 4, <1, <1; dibenzo-α-pyrone, 20, 20, <10; 6-dibenzopyran, all <10.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

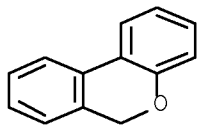
Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 52 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1953:12167 CAPLUS Full-text
Document Number
47:12167
Title
Reduction of 3,4:5,6-dibenzo(1,2-pyrone) [6-dibenzopyrone] by lithium aluminum hydride
Author/Inventor
Inubushi, Yasuo
Patent Assignee/Corporate Source
Univ. Kyoto
Source
Yakugaku Zasshi (1952), 72, 656-7 CODEN: YKKZAJ; ISSN: 0031-6903
Document Type
Journal
Language
Unavailable
Abstract
Anthranilic acid (20 g.) in a small amount of alc. treated with 15 g. concentrated H_2SO_4, diazotized with 10 g. $NaNO_2$ while cooled with ice, and filtered give 25 g. o-$HO_2CC_6H_4N_2SO_4H$ this, treated with 3 vols. PhOH, heated slowly until the evolution of N ceases, poured into a large amount of water, evaporated to remove the PhOH, the residue treated with 10% Na_2CO_3, extracted with ether, and the product recrystd. from MeOH give 3.5 g. 6-dibenzopyrone (I), needles, m. 94-5°. $LiAlH_4$ (1 g.) and 100 ml. dry ether treated dropwise with 2 g. I in 120 ml. ether in 20 min., the mixture stirred 40 min., the $LiAlH_4$ decomposed slowly by addition of wet ether, then with water, 10 % H_2SO_4 added, and the ether layer distilled give 1.4 g. 2-hydroxymethyl-2'-hydroxybiphenyl (II), m. 131-2° (from alc.). II (1 g.) in 30 ml. C_6H_6 heated to 50°, HBr gas passed in 20 min., and the mixture let stand overnight, washed several times with water, and distilled, give 0.88 g. 2-bromomethyl-1'-hydroxybiphenyl (III), b0.7 125-40°; 0.85 g. III treated in a small amount of alc. with 3.4 ml. N alc. KOH, the alc. removed, the residue extracted with ether, and the extract washed with 1% KOH and distilled give 0.51 g. 6H-dibenzopyran, b0.2 108-10°.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



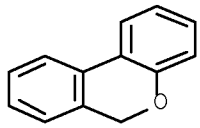
L5 ANSWER 53 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1951:29791 CAPLUS Full-text
Document Number
45:29791
Title
Stabilization of 3,4-dihydro-2H-pyran-2-carboxaldehyde
Author/Inventor
Fountain, Eugene B.; Sharp, Walter H.
Patent Assignee/Corporate Source
Shell Development Co.
Document Type
Patent
Language
Unavailable
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2537579		19510109	US 1949-109424	19490809

Abstract
Stabilization of 3,4-dihydro-2H-pyran-2-carboxaldehyde (I) to minimize decomposition on storing for long periods in the presence or absence of light by addition of 0.001-10% by weight of (CO2H)2, other saturated aliphatic dicarboxylic acids, sulfanilic acid, sulfonic acids, or a lower saturated monocarboxylic acid, e.g. a sample of I containing 97% carbonyl, stabilized with 0.2% of (CO2H)2, and stored above 110°F. for 124 days had a carbonyl content of 93%. Cf. C.A. 44, 9486e.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



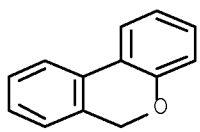
L5 ANSWER 54 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1950:49454 CAPLUS Full-text
Document Number
44:49454
Title
Dibenzopyran marihuana-like compounds
Author/Inventor
Adams, Roger
Document Type
Patent
Language
Unavailable
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2509387		19500530	US	

Abstract
The preparation of 1-hydroxy-3-alkyl-6,6,9-trimethyl-7,8,9,10-tetrahydro-6H- dibenzopyrans is discussed. The 3-position is occupied by an aliphatic hydrocarbon chain containing at least 2 alkyl substituents. Compds. substituted in this way are more active physiol. than those with n-alkyl side chains. The process may be expressed by the following equations: 3,5-(MeO)2C6H3CO2Et (I) → hydrazide (II) → 1-(3,5-dimethoxybenzoyl)-2-(p-tolylsulfonyl)hydrazine (III) → 3,5-(MeO) 2 C6H3 CHO (IV) → 3,5-(MeO) 2 C6H3 CH2OH (V) → chloride (VI) → cyanide (VII) → α-(3,5-dimethoxyphenyl)-α-methylpropionitrile (VIII) → 2-methyl-2-(3,5-dimethoxyphenyl)-3-pentanone (IX) → 3-pentanol (X) → 3-pentene (XI) → 3-pentane (XII) → 1-(1,1-dimethylbutyl)-3,5-dihydroxybenzene (XIII) → 1-hydroxy-3-(1,1-dimethylbutyl)-9-methyl-7,8,9,10-tetrahydro-6- dibenzopyrone (XIV) → 6H-dibenzopyran (XV). I, b3 120-5°, is prepared by refluxing 100 g. 3,5-(MeO)2C6H3CO2H, 350 mL. anhydrous C6H6, 2 mL. pyridine, and 300 g. SOCl2 3 h., removing the solvent and excess SOCl2, adding 300 mL. cold absolute EtOH and refluxing 4 h. I (100 g.), 100 g. N2H4.H2O, and 110 mL. absolute EtOH refluxed 8 h. yield on cooling II, white plates from EtOH, m. 168-9°. II (100 g.), 100 g. p-MeC6H4SO2Cl, and 100 mL. pyridine, heated 1 h., poured into 75 mL. water, and stirred yield III, m. 165-6° (from aqueous EtOH). III (25 g.) and 100 mL. glycerol are stirred and heated to 125°, 20 g. K2CO3 in 100 mL. hot glycerol added, the mixture heated 30 s. at 140°, poured onto 300 g. ice, extracted with Et2O, and the extract dried with MgSO4; distillation gives IV, b1-2 125-30°, m. 45-6° (from 90-100° petr. ether). Reduction of IV with a PtO2 catalyst at 2-3 atmospheric yields V, m. 47-8°. To V (15 g.) and 1 mL. pyridine in 200 mL. dry Et2O is added, in 20-mL. portions, 22.5 g. SOCl2 in 100 mL. Et2O, and the mixture let stand 15 min., extracted with two 100-mL. portions of cold water, and evaporated in vacuo; recrystn. from 90-110° petr. ether gave VI, m. 46°. Refluxing 16 g. VI, 300 mL. EtOH, and 30 g. NaCN in 75 mL. water for 3 h., pouring onto 400 g. ice, filtering, and recrystg. the solid from 90-110° petr. ether gave VII, m. 53°. VII is alkylated to VIII by the method of Smith and Spillane (C.A. 37, 1708.5). VIII is converted to IX, b0.3 104°, by adding 26 g. VIII in 100 mL. Et2O to EtMgBr (41.2 g. EtBr, 5.9 g. Mg, 200 mL. Et2O), adding C6H6 to replace the Et2O, refluxing 48 h., decomposing with dilute H2SO4, distilling off the C6H6, heating 2 h. on a steam cone, extracting with Et2O, and distilling IX reduced with Cu chromite and 3000 lb. H pressure at 150-70° and distilled yields X, b0.5 120-30°, nD20 1.5249 ± 0.0001. X (15.2 g.) in 100 mL. dry Et2O treated with 2.5 g. K in 200 mL. Et2O, an equimolar amount of CS2 added over a 0.5-h. period, then 9.0 g. MeI, the mixture refluxed 6 h., let stand overnight, the KI filtered off, the Et2O removed, the residue vacuum-distilled, and the light yellow product refluxed with Raney Ni in alc. and redistd. yields colorless XI, b0.5 104-6°. XI hydrogenated with Raney Ni at 2-3 atmospheric and room temperature yields XII, b1.5-2 115-17°. XII (8 g.) refluxed in 200 mL. 48% HBr and 75 mL. glacial HOAc for 4.5 h. and worked up as in U.S. 2,509,386 (preceding abstract) gives XIII, b. 151-4°. XIII and Et 5-methylcyclohexan-1-one-2-carboxylate (cf. preceding abstract) yield XIV, m. 218-220°. XV, prepared from XIV and MeMgI, b0.02 158°. The preparation of analogous compds. is also discussed.
Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 55 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1950:49453 CAPLUS Full-text
Document Number
44:49453
Title
Dibenzopyran marihuana-like compounds
Author/Inventor

Adams, Roger

Document Type
Patent

Language
Unavailable

Patent Information

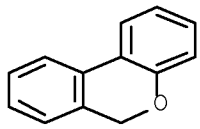
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2509386		19500530	US	

Abstract
Products having marihuana activity are obtained by a 6-step synthesis consisting of (1) treating a 3,5-dimethoxyphenyl alkyl ketone with an alkyl Grignard reagent; (2) distilling the resultant carbinol with a few drops of H2SO4 to form the corresponding alkene; (3) reduction of the alkene to the alkane; (4) demethylation with HBr to the 3,5-dihydroxyphenylalkane; (5) condensation with an alkyl 5-methylcyclohexan-1-one-2-carboxylate to the 1-hydroxy-3-alkyl-9-methyl-7,8,9,10-tetrahydro-6-dibenzopyrone; and (6) conversion to the pyran with RMgX. Thus, 2-(3,5-dimethoxyphenyl)-2-heptene (I) was prepared by slowly adding 25.8 g. 3,5-(MeO)2C6H3COAm in 120 ml. Et2O to 0.109 mole MeMgI, refluxing 1 hr., cooling the solution, decomposing with saturated NH4Cl solution, drying the Et2O layer, distilling the carbinol, heating the crude carbinol to boiling under reduced pressure in a distilling flask with 6 drops 20% H2SO4, evaporating all the water in vacuo, and distilling the pure I, b3.5 149-59°, nD25 1.5247, d425 0.9864. Reduction of 10.55 g. I in 100 ml. 95% EtOH with Raney Ni at room temperature and 2-3 atmospheric and distillation gave the pure heptane (II), b3 135-7.5°, nD25 1.4998, d425 0.9654. II (7.6 g.) was refluxed 5 hrs. in 18 ml. 48% HBr and 53 ml. glacial HOAc, poured into 400 g. ice water, extracted with 3 portions of Et2O, the exts. neutralized with NaHCO3 solution and extracted with 10% NaOH, the exts. acidified, and the Et2O extraction repeated; removal of the Et2O and distillation yielded the yellow 5-(1-methylhexyl)resorcinol (III), b2 168.5-70°. III (4.4 g.), 4 g. Et 5-methylcyclohexan-1-one-2-carboxylate, and 2.5 g. POCl3 refluxed 5 hrs. in 30 ml. dry C6H6, poured into 100 g. ice water, the mixture neutralized with NaHCO3, and the C6H6 evaporated yielded 1-hydroxy-3-(1-methylhexyl)-9-methyl-7,8,9,10-tetrahydro-6-dibenzopyrone (IV), m. 144.5-5° (from EtOAc). To 3.15 g. IV and 0.115 mole MeMgI in 60 ml. Et2O was added 60 ml. dry C6H6, the Et2O distilled off, the C6H6 solution refluxed 18 hrs., the Grignard compound decomposed with 120 g. ice and 15 ml. concentrated H2SO4, the aqueous layers extracted with Et2O, the organic layers combined, the solvents evaporated, and the purple solid residue treated in 50 ml. 95% with 1 g. Darco, and refluxed 10 hrs.; distillation gave the 6H dibenzopyran analog (V) of IV, b2 208-13°. 2-(3,5-Dimethoxyphenyl)-2-hexene (VI), similarly prepared from the corresponding ketone, MeMgI, and H2SO4, b2.5 138-40°, nD25 1.5301, was reduced to the hexane (VII), b2.5 126-9°, nD25 1.5021, d425 0.9707. The final product was the 3-(1-methylpentyl) homolog of V, b<1 173-81°. The preparation of other pyrans is discussed.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 56 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1950:3092 CAPLUS Full-text

Document Number
44:3092

Title
Tetrahydrodibenzopyran derivatives isomeric with tetrahydrocannabinols

Author/Inventor
Avison, A. W. D.; Morrison, A. L.; Parkes, M. W.

Source
Journal of the Chemical Society (1949) 952-5 CODEN: JCSOA9; ISSN: 0368-1769

Document Type
Journal

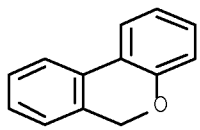
Language
Unavailable

Abstract
4,1,3-C6H13C6H3(OH)2 (I) (22 g.) and 22 g. Et 1-methyl-3-cyclohexanone-4-carboxylate (II), treated slowly with 40 mL. concentrated H2SO4 and kept 21 h. at room temperature, give 7-hydroxy-5'-methyl-6-hexyl-3,4-cyclohexenocoumarin (III), cream, m. 167-8°, intense blue fluorescence in alc. KOH. III (1 g.) and 0.5 g. 5% Pd-C, heated at 300-10°, give 7-hydroxy-5'-methyl-6-hexyl-3,4-benzocoumarin (IV), m. 220-2°. 2,4-BrMeC6H3CO2H (1.75 g.) and 1.5 g. I in 10 mL. N NaOH, heated to boiling and treated with 0.5 mL. CuSO4, also give IV. III (10 g.) in 150 mL. C6H6, added to MeMgI (47.5 g. MeI) in 120 mL. ether and refluxed 15 h., gives 4"-hydroxy-2,2,5'-trimethyl-5"-hexyl-3',4',5',6'- tetrahydrodibenzopyran (V), amber resin, b0.3 180-5°. 4,1,3-C7H15C6H3(OH)2 (14.5 g.) and 12.8 g. II in 80 mL. C6H6, boiled 5 min. and kept 18 h. at room temperature, give the 6-heptyl homolog of III, m. 160-1°; 5"-heptyl homolog (VI) of V, b0.2 198-202°. 6-Octyl homolog of III, pale pink, m. 152-3°; 5"-octyl homolog (VII) of V, b0.001, 193-6°. 4-Cyclohexylresorcinol (improved method of preparation given) and II with POCl3 give the 6-cyclohexyl analog of III, m. 280-5 °; 5"-cyclohexyl analog (VIII) of V, b0.0006 185-95°. m-C6H4(OH)2 (27.5 g.) and 32.5 g. sec-C8H17OH in 100 mL. PhNO2, treated slowly at 70-80° with 66.8 g. AlCl3 in 130 mL. PhNO2 and heated 5 h. at 80°, give 14.7 g. 4-sec-octylresorcinol (IX) b0.1 147-53°; 25 g. C6H13CH:CH2 (25 g.), 24.6 g. 1,3-C6H4(OH)2, and 1.2 g. HBF4, heated 3 h. at 140°, give 18.7 g. IX. IX (12.5 g.) and II in 80 mL. C6H6, treated with 8.65 g. POCl3, give 4.4 g. of the 6-sec-octyl analog of III, m. 197°; 5"-sec-octyl analog (X) of V, b0.001 163°. The Gayer test gives ED50 (mg./kg.) as follows: V 0.125, VI 0.06, VII 0.04, VIII 0.04, X 0.07; LD50 (mg./kg.) for mice: V 490, VI 188, VII about 400, VIII 60, X about 400. Hashish activity, as measured by the Gayer test, is present but there is less pronounced change of potency with variation in the alkyl substituent than in the tetrahydrocannabinol series.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 57 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1950:3091 CAPLUS Full-text

Document Number
44:3091

Title
Polymerization products of diketene

Author/Inventor
Steele, Arthur B.; Boese, Albert B.; Dull, Malcolm F.

Source
Journal of Organic Chemistry (1949), 14, 460-9 CODEN: JOCEAH; ISSN: 0022-3263

Document Type
Journal

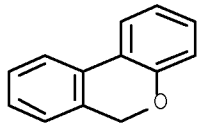
Language
Unavailable

Abstract
The addition of 900 g. diketene during 2 hrs. to 1 l. boiling C6H6 containing 1 g. NaOPh gives 54% dehydroacetic acid, 4% 2,6-dimethyl-4-pyrone, m. 131-2°, CO2 (12 mol.-% based on diketene), Me2CO, and 8% 2,6-bis(6-methyl-4-oxo-2-pyranylmethyl)pyrone (I), m. 235-6°, insol. in common organic solvents except boiling p-dioxane and HOAc, in which it dissolves to the extent of 7.2 and 5.2 g./100 g. solvent, resp. I (11 g.) and 150 g. Br at 2-4° 10 days give a red oil which loses HBr at ordinary temperature to give a yellow solid. Recrystn. from Me2Ca gives 2.4 g. yellow needles, m. 92-3°; analysis corresponds to C19H10Br6O6.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 58 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1946:20831 CAPLUS Full-text

Document Number
40:20831

Title
Dibenzopyran derivative having marihuana activity

Author/Inventor
Adams, Roger

Document Type
Patent

Language
Unavailable

Patent Information

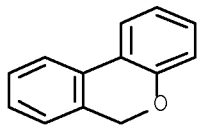
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 564827		19441016	GB 1942-4972	19420415

Abstract
Optically active pulegone is condensed with a 1,3,5-C6H3(OH)2R (I), where R = an alkyl of 1 to 10 C atoms by refluxing the mixture in an inorg. solvent in the presence of POCl3 in the approx. proportion of 1 mol. of POCl3 to 3 mols. of pulegone. Thus, from optically active pulegone ([α]D32 24.3°) and I, R = Me, was obtained 1-hydroxy-3,6,6,9-tetramethyl-7,8,9,10-tetrahydro-6-dibenzopyran (II), b5 170-80°, which is optically-active, [α]D31 83.5 to 90.4°, depending upon the b.p. of the fraction tested. From I, R = Bu, and pulegone a 3-Bu homolog of II, b0.08 145-50°, [α]D32 72 to 80° (EtOH), may be obtained. Also prepared was the 3-hexyl homolog, b0.4 183-6°, [α]D32 75.9°.

Hit Structure

CAS Registry Number
229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



L5 ANSWER 59 OF 59 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1943:37522 CAPLUS Full-text

Document Number
37:37522

Title
Polyhydrodibenzopyran derivatives

Author/Inventor
Todd, Alexander R.; Ghosh, Ranajit

Patent Assignee/Corporate Source
Roche Products Ltd.

Document Type
Patent

Language
Unavailable

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 547669		19420907	GB 1941-1430	19410203

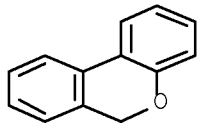
Abstract
The compds. are prepared by the condensation of resorcinol derivs., such as orcinol or olivetol, with unsatd. terpenoid compds. such as pulegol and pulegone.

Hit Structure

CAS Registry Number

229-95-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran (CA INDEX NAME)



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L3            31 SEA FILE=REGISTRY SSS SAM L1
L4             5 SEA FILE=REGISTRY FAM FUL L1

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FULL ESTIMATED COST                             333.01     407.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                             -47.56     -47.56

STN INTERNATIONAL LOGOFF AT 11:14:59 ON 08 MAY 2009


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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


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L1      STRUCTURE UPLOADED

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                        BATCH   **COMPLETE**
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PROJECTED ANSWERS:                0 TO         0

L2             0 SEA FAM SAM L1

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PROJECTED ITERATIONS:          4197 TO     6123
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L3             2 SEA SSS SAM L1

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L3 2 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
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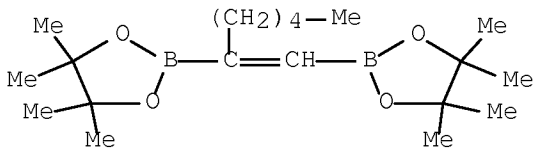

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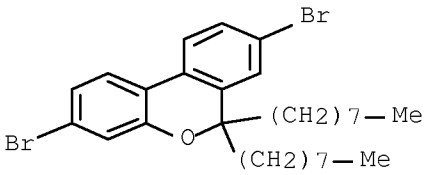

. L3 2 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-, homopolymer (9CI)
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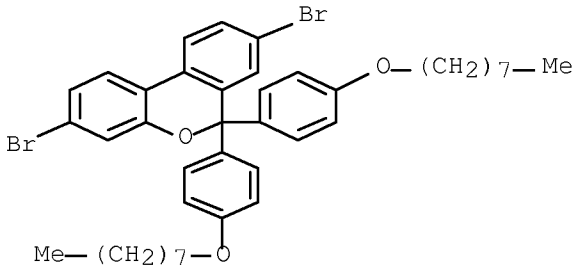

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L5           14 L4

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. L5 14 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
Title
Persulfate oxidation of carboxylic acids. III. Oxidation of cis-cinnamic and biphenyl-2-carboxylic acids

. L5 14 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
Title
Polymeric light emitting materials for thin films, light emitting devices, plane light sources, display devices, organic transistors and solar cells

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       4773532 PREP/RL
L6           11 L4/PREP
                 (L4 (L) PREP/RL)

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. L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2009:422839 CAPLUS Full-text
Document Number
150:427188
Title
Polyheteroarenes, their compositions and films, organic photoelectric converters and electroluminescent devices with their layers, and monomers for them
Author/Inventor
Uetani, Yasunori; Noguchi, Kiminobu
Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan
Source
Jpn. Kokai Tokkyo Koho, 51pp. CODEN: JKXXAF
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009073808	A	20090409	JP 2008-115201	20080425

Abstract
The polyheteroarenes have structural repeating units represented by I (R = H, alkyl, alkoxy, alkylthio, etc.; R1 = H, alkyl, alkoxy, aryl, cyano; Ar1 = arylene, heterocyclylene; Z = O, S; m, n = 2-4), preferably II (R, R1, Ar1 = same as above). Organic photoelec. converters, e.g., solar cells, have layers containing I show high photoelec. conversion efficiency. The photoelec. converters may also use fullerenes as electron acceptors.
Hit Structure

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CAS Registry Number
18102-99-3  CAPLUS


Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one,  3,8-dibromo-  (CA INDEX NAME)
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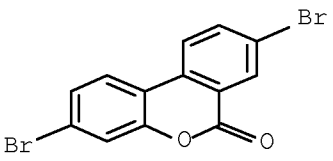
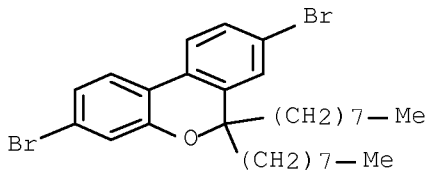


CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



. L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2009:69857 CAPLUS Full-text

Document Number
150:222169

Title
Application of two bromophenol compounds in preparing drugs for treating malignant tumor

Author/Inventor
Shi, Dayong; Han, Lijun; Fan, Xiao; Xu, Feng; Liu, Quanwen

Patent Assignee/Corporate Source
Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China

Source
Faming Zhuanli Shenqing Gongkai Shuomingshu, 8pp. CODEN: CNXXEV

Document Type
Patent

Language
Chinese

Patent Information

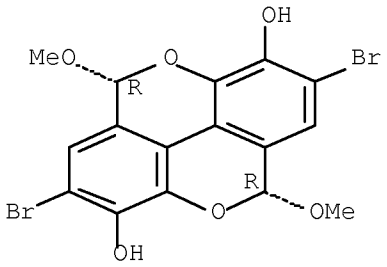
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101342158	A	20090114	CN 2007-10015296	20070713

Abstract
The invention provides two antitumor bromophenol compds., i.e., 3-bromo-4-[3-bromo-4,5-dihydroxyphenyl]methyl-5-(ethoxy)-1,2-diphenol and 5R, 10R-2,7-dibromo-3,8-dihydroxy-5,10-dimethoxy-5,10-dihydro- benzopyrano[5, 4,3-cde]benzopyran, and their pharmaceutically acceptable salt, ester or ether, which have good inhibitory effect on protein tyrosine kinase. The invention also relates to application of said two bromophenol compds. in preparing drugs for treating malignant tumor with high C-kit receptor expression.

Hit Structure

CAS Registry Number
863869-74-3 CAPLUS

Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-3,8-diol,
2,7-dibromo-5,10-dihydro-5,10-dimethoxy-, (5R,10R)- (CA INDEX NAME)



L6 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2008:1397717 CAPLUS Full-text

Document Number
149:577440

Title
Polymeric light emitting materials for thin films, light emitting devices, plane light sources, display devices, organic transistors and solar cells

Author/Inventor
Noguchi, Takanobu; Suzuki, Tomoyuki

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 76pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008140057	A1	20081120	WO 2008-JP58664	20080509
JP 2008308671	A	20081225	JP 2008-123576	20080509

Abstract
Title polymer compds. comprise a repeating unit (I) and/or a repeating unit (II), wherein Rf1, Rf2, Rg1, Rg2 = Ph or substituent and Rd1, Rd2, Re1, Re2 = H or substituent. Thus, 0.617 g 2,7-dibromo-9,9-dioctyl-9H-fluorene and 0.400 g 2,2'-[1-pentyl-1,2-ethenediyl]bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] were polymerized in the presence of dichlorobis(triphenylphosphine)palladium and Aliquat 336 to give a copolymer Mw 6.4 + 103, fluorescence at 462 nm, and relative fluorescence intensity 5.1.

Hit Structure

CAS Registry Number
1082773-87-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

CM
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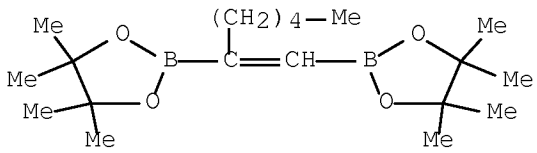
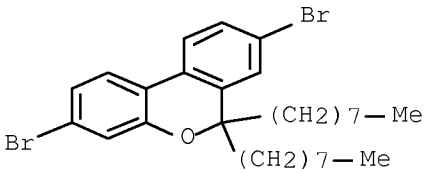
CRN 1082741-59-0
CMF C19 H36 B2 O4



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
1082773-89-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

CM
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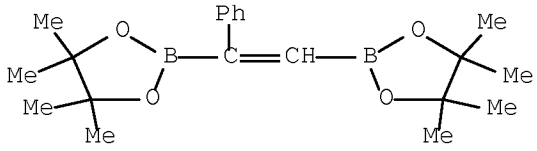
CRN 916669-80-2
CMF C20 H30 B2 O4



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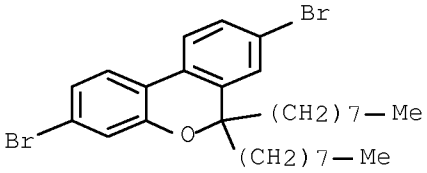
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
1082773-91-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]-, polymer with 2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

CM
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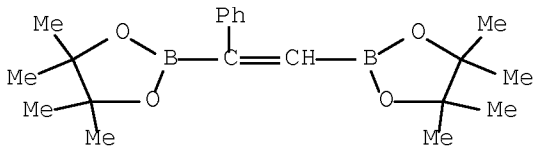
CRN 916669-80-2
CMF C20 H30 B2 O4



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CRN 688013-70-9
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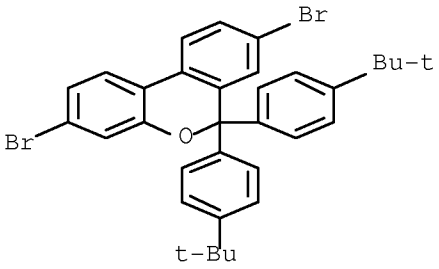

CAS Registry Number
1082773-93-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,7-dibromo-9,9-dioctyl-9H-fluorene and
2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

CM
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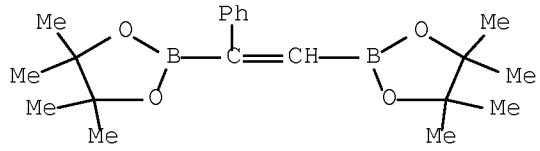
CRN 916669-80-2
CMF C20 H30 B2 O4



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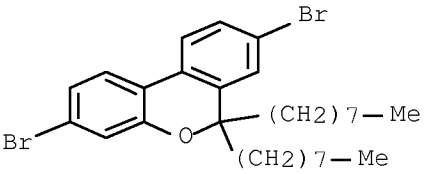
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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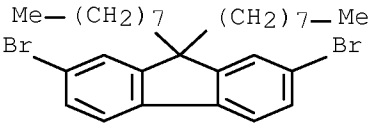
CRN 198964-46-4
CMF C29 H40 Br2



CAS Registry Number
1082773-95-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,7-dibromo-9,9-bis[4-(hexyloxy)phenyl]-9H-fluorene and
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

CM
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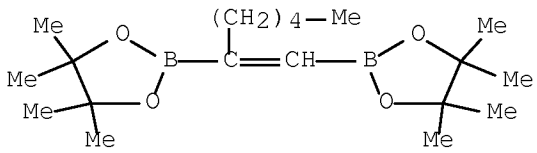
CRN 1082741-59-0
CMF C19 H36 B2 O4



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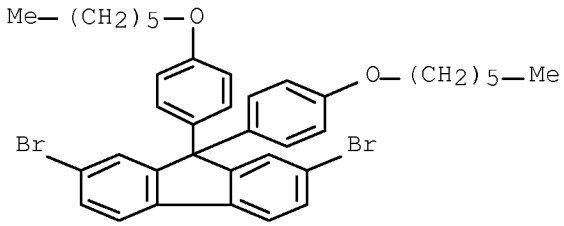
CRN 690994-34-4
CMF C37 H40 Br2 O2



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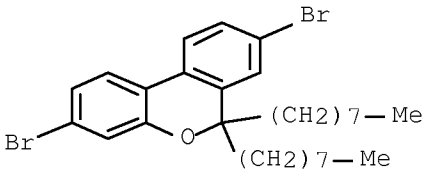
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
1082773-97-4 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N1,N4-bis(4-bromophenyl)-N1,N4-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran, 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] and 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane], block (CA INDEX NAME)

CM
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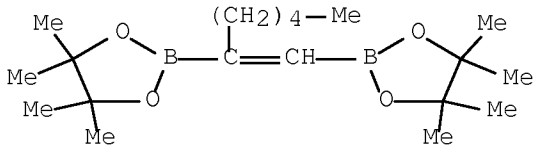
CRN 1082741-59-0
CMF C19 H36 B2 O4



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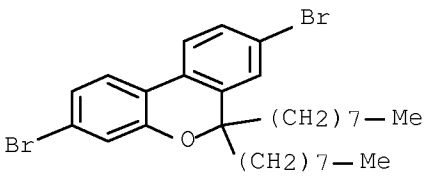
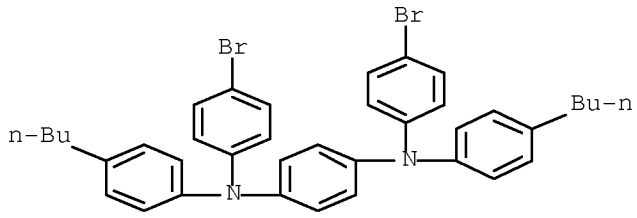


CM
3

CRN 372200-89-0

CMF C38 H38 Br2 N2



CM
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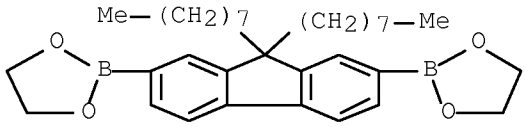
CRN 210347-49-2
CMF C33 H48 B2 O4



L6 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:731389 CAPLUS Full-text

Document Number
146:180393

Title
Urceolatol, a tetracyclic bromobenzaldehyde dimer from Polysiphonia urceolata

Author/Inventor
Liu, Q.-W.; Tan, C.-H.; Zhang, T.; Zhang, S.-J.; Han, L.-J.; Fan, X.; Zhu, D.-Y.

Patent Assignee/Corporate Source
Institute of Oceanology, Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

Source
Journal of Asian Natural Products Research (2006), 8(4), 379-383 CODEN: JANRFI; ISSN: 1028-6020

Document Type
Journal

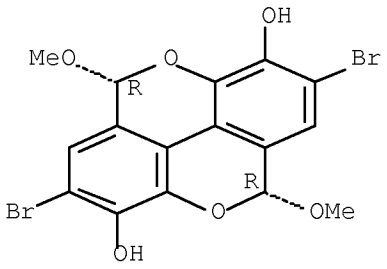
Language
English

Abstract
Urceolatol (1), a novel bromobenzaldehyde dimer, together with one known bromophenol, 3-bromo-4,5-dihydroxy-benzaldehyde (2), were isolated from the red alga Polysiphonia urceolata. The structure and absolute stereochem. of 1 were elucidated to be (5R,10R)-2,7-dibromo-3,8-dihydroxy-5,10- dimethoxyl-5,10-dihydrochromeno[5,4,3-cde]chromene, on the basis of spectroscopic techniques and X-ray diffraction anal.

Hit Structure

CAS Registry Number
863869-74-3 CAPLUS

Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-3,8-diol,
2,7-dibromo-5,10-dihydro-5,10-dimethoxy-, (5R,10R)- (CA INDEX NAME)



L6 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:655771 CAPLUS Full-text

Document Number
145:124968

Title
Polymer compound and its use in heat-resistant polymer light-emitting device

Author/Inventor
Kobayashi, Shigeya; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 154 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2006070848	A1	20060706	WO 2005-JP24011	20051221
JP 2006182920	A	20060713	JP 2004-378517	20041228
GB 2437213	A	20071017	GB 2007-14555	20051221
DE 112005003270	T5	20080410	DE 2005-112005003270	20051221
US 20080145571	A1	20080619	US 2007-722225	20070620
KR 2007090041	A	20070904	KR 2007-717119	20070725
CN 101124259	A	20080213	CN 2005-80048421	20070817

Abstract

Disclosed is a polymer compound characterized by containing a structure represented by the following formula I (ring A and ring B independently represent an optionally substituted aromatic hydrocarbon ring, and ring C represents an alicyclic hydrocarbon which contains no fused aromatic compound while having at least one substituent; the alicyclic hydrocarbon may contain a heteroatom).

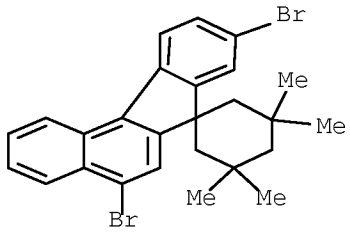
Hit Structure

CAS Registry Number
896732-77-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 5,9-dibromo-3',3',5',5'-tetramethylspiro[7H-benzo[c]fluorene-7,1'-cyclohexane] (9CI) (CA INDEX NAME)

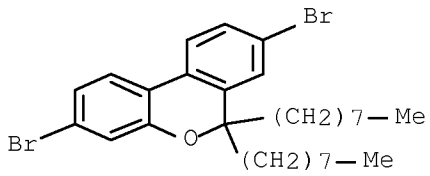
CM
1

CRN 896732-73-3
CMF C26 H26 Br2



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:99991 CAPLUS Full-text

Document Number
144:172274

Title
Polymeric compounds for thin polymer film devices

Author/Inventor
Ueda, Masato

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 72 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006011643	A1	20060202	WO 2005-JP14156	20050727
JP 2006063334	A	20060309	JP 2005-217025	20050727
DE 112005001823	T5	20070606	DE 2005-112005001823	20050727
GB 2432837	A	20070606	GB 2007-3688	20050727
GB 2432837	B	20080820		
CN 1989169	A	20070627	CN 2005-80025103	20050727
US 20080003422	A1	20080103	US 2007-572513	20070123
KR 2007047314	A	20070504	KR 2007-704336	20070223

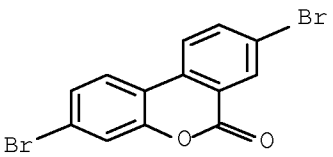
Abstract

Title polymeric compds. with number average mol. weight 103-108 comprise repeating units I and II, wherein Ar1, Ar2 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), or SO2 (X1 ≠ X2); Y = O or S; R9 = halogen, alkyl, or alkyloxy; m = 0 or 1; n, o = 1-6 integer; and p = 0-2 integer. Thus, 6.65 g 2,7-dibromofluorenone was dissolved in 140 mL 1:1 mixture of trifluoroacetic acid/chloroform, sodium perborate monohydrate was added therein, stirred for 20 h, 1.00 g of the resulting 3,8-dibromo-6H-dibenzo[b,d]pyran-6-one was stirred with octyl magnesium bromide, ring-closed with p-toluenesulfonic acid monohydrate, and reacted with bis(pinacolato)diborane to give 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H- dibenzo[b,d]pyran, 0.62 g of which was reacted with 0.29 g 5,5'-dibromo-2,2'-bithiophene in the presence of tetrakis(triphenylphosphine)palladium for 16.3 h to give a copolymer, 0.2% solution of the resulting copolymer in chloroform was applied on a poly(3,4-ethylenedioxythiophene) /polystyrenesulfonic acid-coated ITO/glass plate, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give a thin film device, showing short-circuit current 43 μA/cm2 and open circuit voltage 1.75 V.

Hit Structure

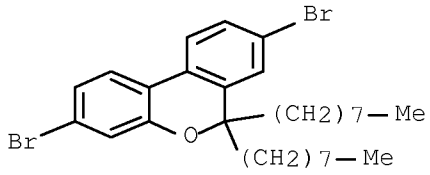
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:324209 CAPLUS Full-text

Document Number
142:374970

Title
Polymer light-emitting material and polymer light-emitting device

Author/Inventor
Nakatani, Tomoya; Sekine, Chizu; Mikami, Satoshi; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 111 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2005033174	A1	20050414	WO 2004-JP14569	20040928
DE 112004001856	T5	20060727	DE 2004-112004001856	20040928
GB 2424895	A	20061011	GB 2006-8519	20040928
GB 2424895	B	20080709		
CN 1863838	A	20061115	CN 2004-80028951	20040928
JP 2005126705	A	20050519	JP 2004-286813	20040930
US 20070051922	A1	20070308	US 2006-573839	20060329
KR 2006115861	A	20061110	KR 2006-708210	20060428

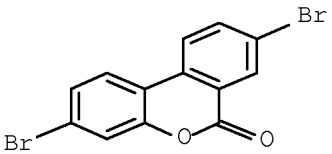
Abstract

Disclosed is a polymer light-emitting material containing a polymer compound with number average mol. weight of 103-108 composed of repeating units I or II and exhibiting light emission from the triplet excited state, wherein Ar1, Ar2, Ar3, Ar4 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), SO2, CR1R2, SiR3R4, NR5, BR6, PR7, or P(:O)R8 (X1 and Ar2 are bonded with adjacent carbon atoms in the aromatic ring of Ar1 and X2 and Ar1 are bonded with adjacent carbon atoms in the aromatic ring of Ar2); X3, X4 = independently N, B, P, CR9, or SiR10 (X3 and Ar4 are bonded with adjacent atoms in the aromatic ring of Ar3 and X4 and Ar3 are bonded with adjacent atoms in the aromatic ring of Ar4); and R1-10 = H, halogen, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylakylthio, acyl, acyloxy, amide, acidic imide, imide residue, amino, substituted amino, silyl, silyloxy, silylthio, or silylamino, monovalent heterocyclic, heteroaryloxy, heteroarylthio, arylalkenyl, arylethynyl, carboxy, alkoxycarbonyl, aryloxycarbonyl, arylalkyloxycarbonyl, heteroaryloxycarbonyl, or cyano group (R1 and R2, R3 and R4 may be bonded each other to form a ring). Thus, 6.65 g 2,7-dibromo-9-fluorenone was treated with sodium perborate monohydrate, reacted with 2,2'-dibromo-5,5'-bis(octyloxy)-1,1'-biphenyl, treated with p-toluenesulfonic acid monohydrate to give 3,8-dibromo-3',6'-bis(octyloxy)-spiro[6H-dibenzo[b,d]pyran-6,9'- [9H]fluorene], 0.37 g of which was polymerized with 0.28 g 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (preparation given) to give a copolymer with number average mol. weight 2.8 + 104 and weight average mol. weight 1.4 + 105, which was mixed with 5% (2,4-pentanedionato-κO,κO')bis[2-(2-pyridinyl- κN)benzo[b]thien-3-yl-κC]-iridium, applied on Baytron P/ITO/glass substrate, dried at 80° for 1 h, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give an electroluminescent element giving emission at 620 nm.

Hit Structure

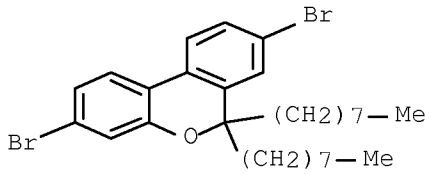
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



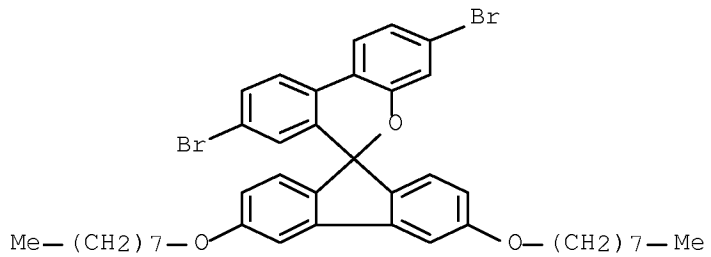
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)



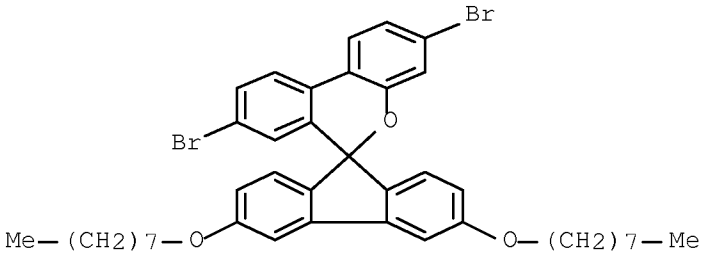
CAS Registry Number
849693-56-7 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM

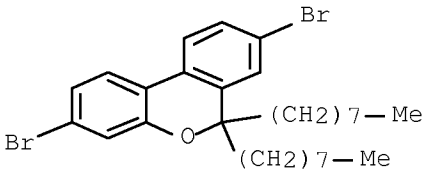
1

CRN 688013-72-1
CMF C41 H46 Br2 O3



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



L6 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:324147 CAPLUS Full-text

Document Number
142:392812

Title
Aromatic compounds having condensationable functional groups useful as monomers

Author/Inventor
Kobayashi, Satoshi; Mikami, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 91 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

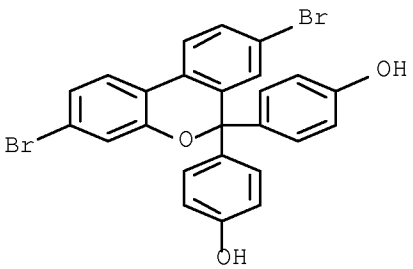
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033090	A1	20050414	WO 2004-JP15001	20041005
JP 2005132829	A	20050526	JP 2004-292337	20041005
US 20070063190	A1	20070322	US 2006-574563	20060404

Abstract
The present invention relates to aromatic compds. I, II, III, and IV, wherein Ar1, Ar3 = tetravalent aromatic hydrocarbon or tetravalent heterocyclic group; Ar2, Ar4, Ar5, Ar6, Ar7 = trivalent aromatic hydrocarbon or trivalent heterocyclic group; A1 = Z1, Z2Z3 or Z4:Z5; Z1, Z2, Z3 = O or S; Z4, Z5 = N, B, or P; and X1, X2, X3, X4, X9, X10, X11, X12 = halogen atom. Thus, 7.0 g 2,2',5,5'-tetramethoxy-1,1'-biphenyl was reacted with 6.8 g N-chlorosuccinimide, treated with boron tribromide, 4.8 g of the resulting 4,4'-dichloro-2,2',5,5'-tetrahydroxy-1,1'-biphenyl was treated with o-dichlorobenzene for 13 h to give 3,7-dichloro-2,8-dibenzofurandiol.

Hit Structure

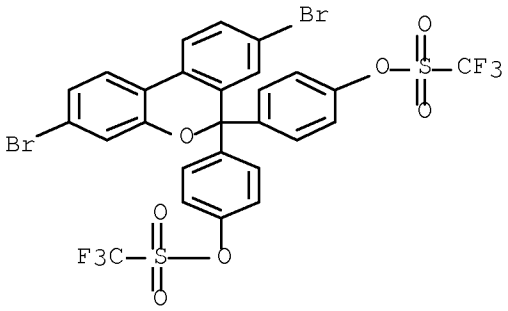
CAS Registry Number
849693-50-1 CAPLUS

Chemical or Trade Name
Phenol, 4,4'-(3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)bis- (9CI) (CA INDEX NAME)



CAS Registry Number
849693-51-2 CAPLUS

Chemical or Trade Name
Methanesulfonic acid, trifluoro-, (3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)di-4,1-phenylene ester (9CI) (CA INDEX NAME)



L6 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2004:392502 CAPLUS Full-text

Document Number
140:415047

Title
High-molecular compounds and polymer light-emitting devices made by using the same

Author/Inventor
Doi, Shuji; Kobayashi, Satoshi; Noguchi, Takanobu

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 131 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

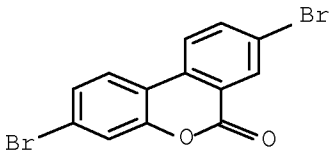
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039859	A1	20040513	WO 2003-JP12697	20031003
JP 2004168999	A	20040617	JP 2003-343244	20031001
AU 2003268752	A1	20040525	AU 2003-268752	20031003
EP 1571170	A1	20050907	EP 2003-748697	20031003
US 20080138651	A1	20080612	US 2005-532937	20050428

Abstract
The invention relates to a high-mol. compds. comprising repeating units represented by the general formula I or II and having number-average mol. wts. of 103-108 in terms of polystyrene: (1) [wherein Ar1 and Ar2 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X1 and X2 are each independently O, S, C(= O), S(= O), SO2, C(R1)(R2), Si(R3)(R4), N(R5), B(R6), P(R7), or P(= O)(R8), with the provisos that X1 and X2 must not be the same and that X1 and Ar2 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar1, and X2 and Ar1 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar2] (2) [wherein Ar3 and Ar4 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X3 and X4 are each independently N, B, P, C(R9), or Si(R10), with the provisos that X3 and X4 must not be the same and that X3 and Ar4 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar3, and X4 and Ar3 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar4].

Hit Structure

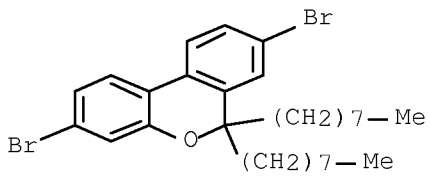
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



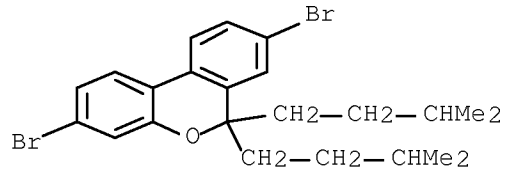
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



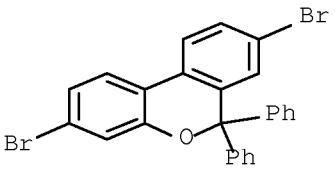
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



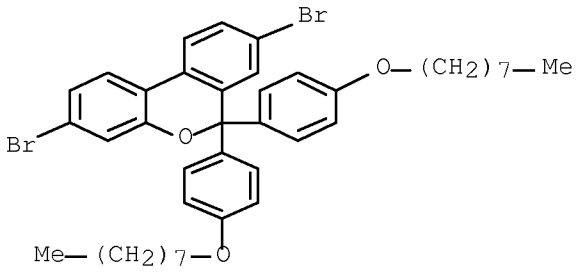
CAS Registry Number
688013-68-5 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-diphenyl- (CA INDEX NAME)



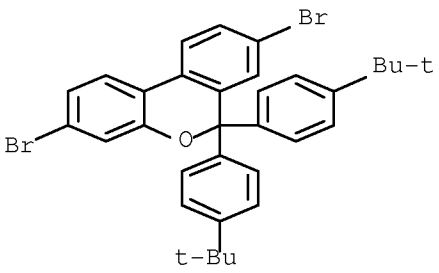
CAS Registry Number
688013-69-6 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]- (CA INDEX NAME)



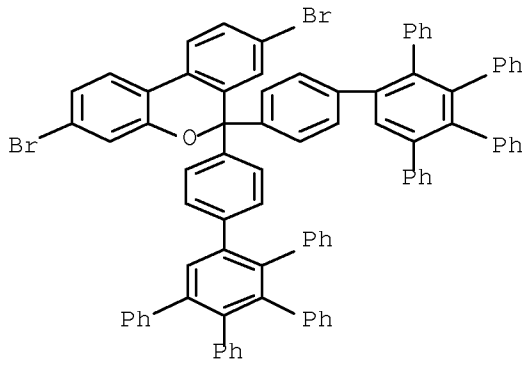
CAS Registry Number
688013-70-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



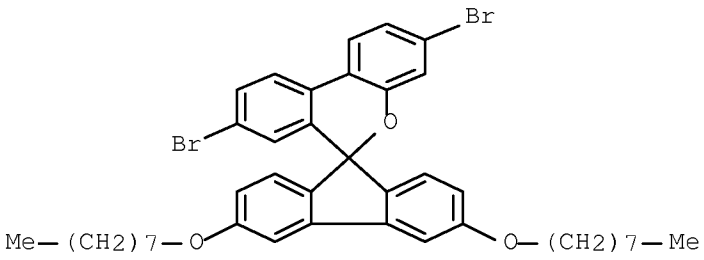
CAS Registry Number
688013-71-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)- (9CI) (CA INDEX NAME)



CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene], 3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)

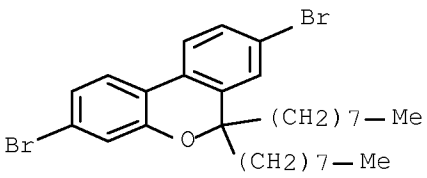


CAS Registry Number
688013-78-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O

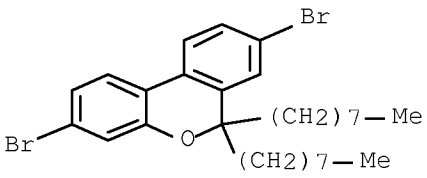


CAS Registry Number
688013-79-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,4-dibromo-2,5-bis(decyloxy)benzene (9CI) (CA INDEX NAME)

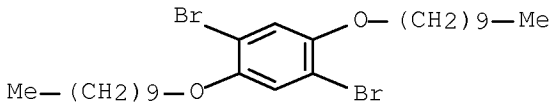
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 152269-98-2
CMF C26 H44 Br2 O2



CAS Registry Number
688013-80-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene (9CI) (CA INDEX NAME)

CM
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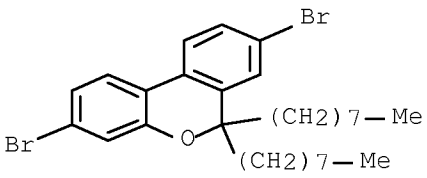
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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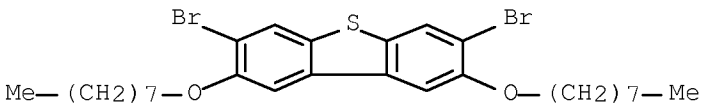
CRN 599212-67-6
CMF C28 H38 Br2 O2 S



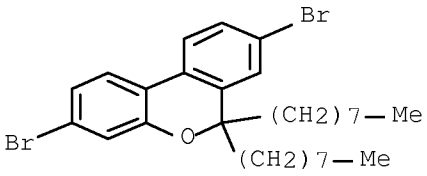
CAS Registry Number
688013-81-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzofuran (9CI) (CA INDEX NAME)

CM
1

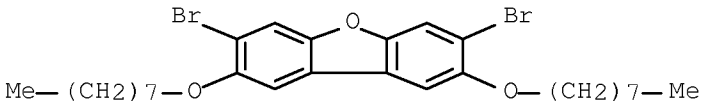
CRN 688013-66-3

CMF C29 H40 Br2 O



CM
   2

CRN 599212-92-7
CMF C28 H38 Br2 O3

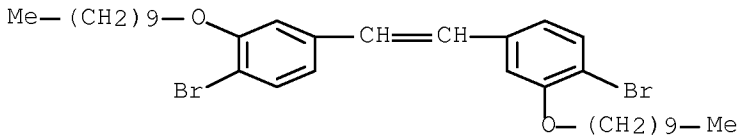


CAS Registry Number
688013-83-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,1'-(1,2-ethenediyl)bis[4-bromo-3-(decyloxy)benzene] (9CI) (CA INDEX
NAME)

CM
   1

CRN 688013-82-3
CMF C34 H50 Br2 O2



CM
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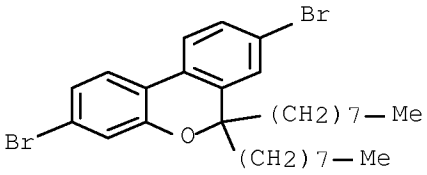
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
688013-84-5 CAPLUS

Chemical or Trade Name
Benzenamine, N,N-bis(4-bromophenyl)-4-(1-methylpropyl)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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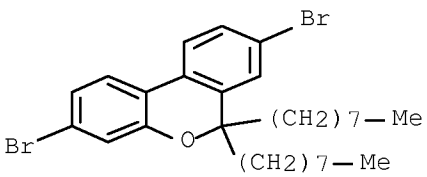
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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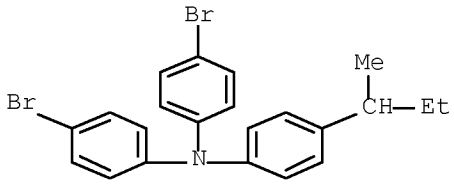
CRN 287976-94-7
CMF C22 H21 Br2 N

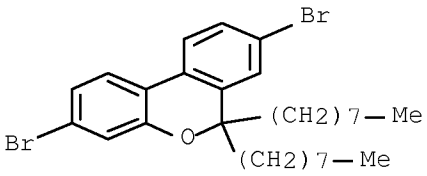


CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

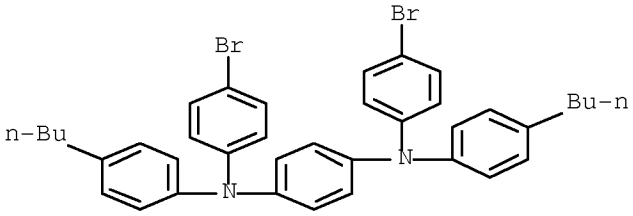
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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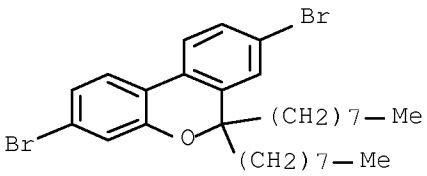
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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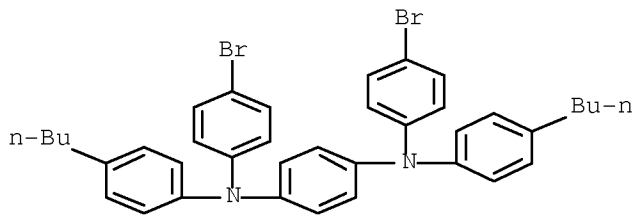
CRN 372200-89-0
CMF C38 H38 Br2 N2

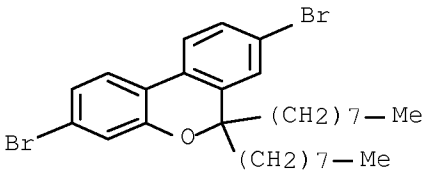


CAS Registry Number
688013-86-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene and 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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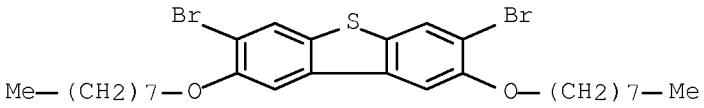
CRN 599212-67-6
CMF C28 H38 Br2 O2 S



CM
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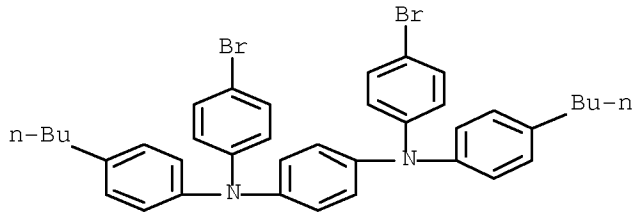
CRN 372200-89-0
CMF C38 H38 Br2 N2

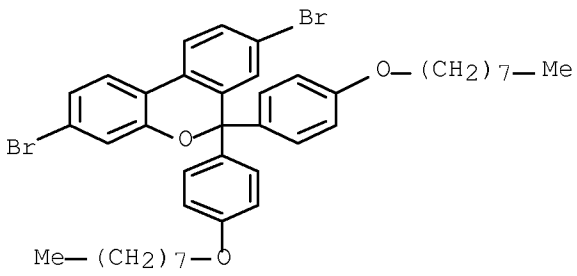


CAS Registry Number
688013-87-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-69-6
CMF C41 H48 Br2 O3



CAS Registry Number
688013-88-9 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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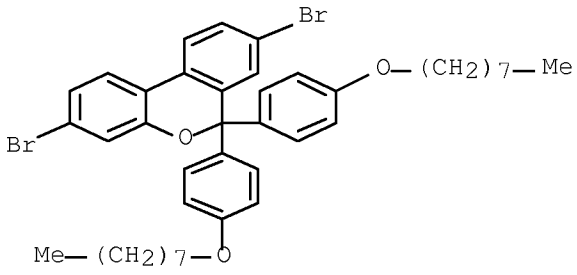
CRN 688013-69-6
CMF C41 H48 Br2 O3



CM
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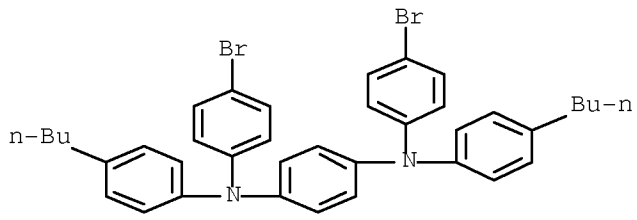
CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-89-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)-, homopolymer (9CI) (CA INDEX NAME)

CM
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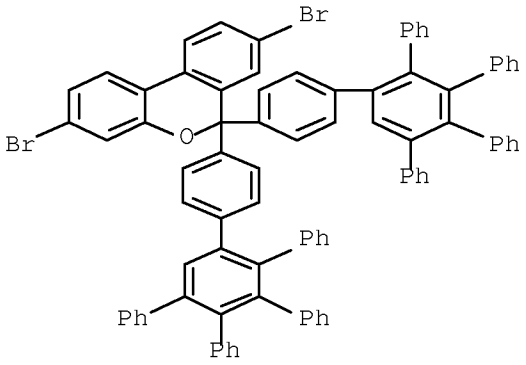
CRN 688013-71-0
CMF C85 H56 Br2 O



CAS Registry Number
688013-90-3 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, homopolymer (9CI) (CA INDEX NAME)

CM
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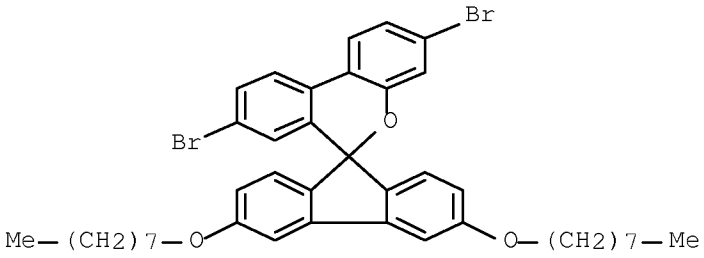
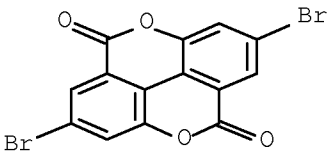
CRN 688013-72-1
CMF C41 H46 Br2 O3



. L6 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1979:540744 CAPLUS Full-text
Document Number
91:140744
Title
Synthesis of 2,7-disubstituted 5,10-dioxo-4,5,9,10-tetrahydro-4,9-dioxopyrenes
Author/Inventor
Migachev, G. I.
Patent Assignee/Corporate Source
Nauchno-Issled. Inst. Plast. Mass., Moscow, USSR
Source
Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D. I. Mendeleeva (1979), 24(3), 307-8 CODEN: ZVKOA6; ISSN: 0373-0247
Document Type
Journal
Language
Russian
Abstract
Nitrating o-HO2CC6H4C6H4CO2H-o with HNO3-H2SO4 at 100° gave 90% I, which was hydrogenated over Raney Ni in DMF to give 80-5% II (R = NH2). Diazotization of II (R = NH2) followed by treatment with hypophosphorous acid gave 66% II (R = H). II (R = Cl, Br, iodo, CN, NHAc, OH, OAc, NO2) were prepared in 73-88% yield similarly.
Hit Structure

CAS Registry Number
71540-29-9 CAPLUS

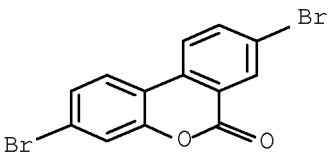
Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-5,10-dione, 2,7-dibromo- (9CI) (CA INDEX NAME)



. L6 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1968:104896 CAPLUS Full-text
Document Number
68:104896
Title
Persulfate oxidation of carboxylic acids. III. Oxidation of cis-cinnamic and biphenyl-2-carboxylic acids
Author/Inventor
Brown, Patricia Margaret; Russell, James; Thomson, Ronald H.; Wylie, A. G.
Patent Assignee/Corporate Source
Univ. Aberdeen, Aberdeen, UK
Source
Journal of the Chemical Society [Section] C: Organic (1968), (7), 842-8 CODEN: JSOOAX; ISSN: 0022-4952
Document Type
Journal
Language
English
Abstract
3,4-Benzocoumarins were obtained by oxidative cyclization of biphenyl-2-carboxylic acids. The parent benzocoumarin was also formed by oxidation of 2'-substituted acids with elimination of the substituent (OMe, NO2, and CO2H and in low yield Me and Cl) but 2'-benzoylbiphenyl-2-carboxylic acid gave 5-benzoyl-3,4-benzocoumarin and 2'-cyanobiphenyl-2-carboxylic acid yielded fluorenone and phenanthridine-1,10-carbolactone. Similar oxidns. of cis-cinnamic acids gave poor yields of coumarins, markedly increased by the presence of an o-methoxy group. The mechanisms of these reactions are discussed. 47 references.
Hit Structure

CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



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Welcome to STN International! Enter x:X

LOGINID:SSPTAAKB1794

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

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L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS

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L1              STR
/ Structure 171 in file .gra /


Structure attributes must be viewed using STN Express query preparation.


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SAMPLE SEARCH INITIATED 12:46:24 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       63 TO ITERATE

100.0% PROCESSED       63 ITERATIONS                              3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          784 TO     1736
PROJECTED ANSWERS:               3 TO      163

L2            3 SEA SSS SAM L1

=> d scan
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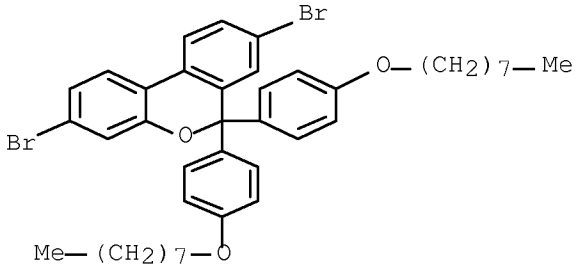
L2 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

Author/Inventor

6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-, homopolymer (9CI)

Hit Structure

CM 1



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

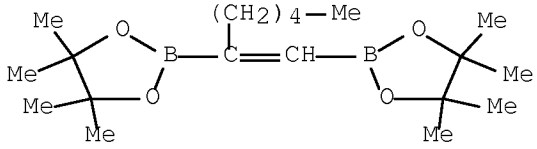
L2 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

Author/Inventor

6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]

Hit Structure

CM 1



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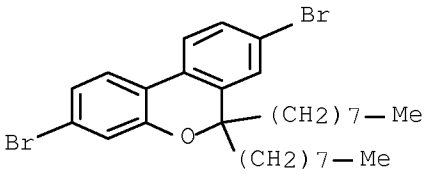
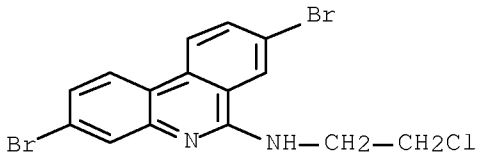


. L2 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6-Phenanthridinamine, 3,8-dibromo-N-(2-chloroethyl)-
Hit Structure



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=>

L3 STRUCTURE UPLOADED

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L3 HAS NO ANSWERS

=> d l3
L3 HAS NO ANSWERS
L3 STR
/ Structure 176 in file .gra /

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 44 TO 476
PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

=> d scan

. L4 2 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
Hit Structure
CM
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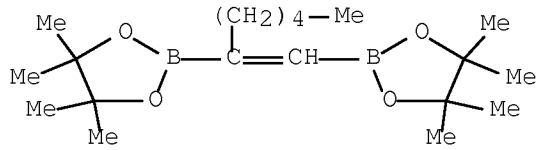

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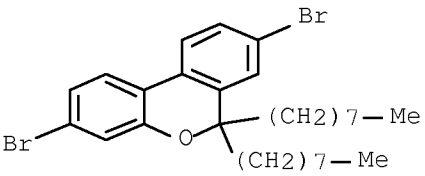

. L4 2 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-, homopolymer (9CI)
Hit Structure
CM
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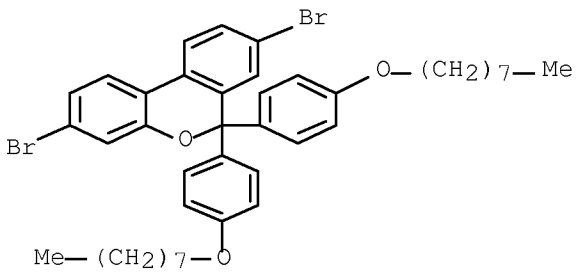


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      ALL ANSWERS HAVE BEEN SCANNED


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FULL SCREEN SEARCH COMPLETED -      349 TO ITERATE

100.0% PROCESSED      349 ITERATIONS                            39 ANSWERS
SEARCH TIME: 00.00.01

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       25140121 PY<=2004
        5128070 AY<=2004
        4605156 PRY<=2004
L6           10 L5 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

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Numeric data cannot be field qualified.

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                (L5 (L) PREP/RL)
       25140121 PY<=2004
        5128070 AY<=2004
        4605156 PRY<=2004
L7            9 L5/PREP AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

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YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):y
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L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:655771 CAPLUS Full-text

Document Number
145:124968

Title
Polymer compound and its use in heat-resistant polymer light-emitting device

Author/Inventor
Kobayashi, Shigeya; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 154 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006070848	A1	20060706	WO 2005-JP24011	20051221
JP 2006182920	A	20060713	JP 2004-378517	20041228
GB 2437213	A	20071017	GB 2007-14555	20051221
DE 112005003270	T5	20080410	DE 2005-112005003270	20051221
US 20080145571	A1	20080619	US 2007-722225	20070620
KR 2007090041	A	20070904	KR 2007-717119	20070725
CN 101124259	A	20080213	CN 2005-80048421	20070817

Abstract
Disclosed is a polymer compound characterized by containing a structure represented by the following formula I (ring A and ring B independently represent an optionally substituted aromatic hydrocarbon ring, and ring C represents an alicyclic hydrocarbon which contains no fused aromatic compound while having at least one substituent; the alicyclic hydrocarbon may contain a heteroatom).

Hit Structure

```
      CAS Registry Number
      896732-77-7  CAPLUS


      Chemical or Trade Name
      6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
      5,9-dibromo-3',3',5',5'-tetramethylspiro[7H-benzo[c]fluorene-7,1'-
      cyclohexane] (9CI)  (CA INDEX NAME)

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      CRN  896732-73-3
      CMF  C26 H26 Br2
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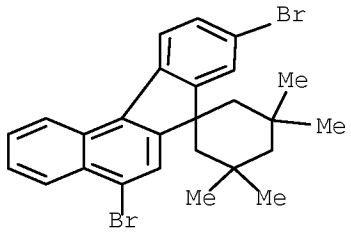

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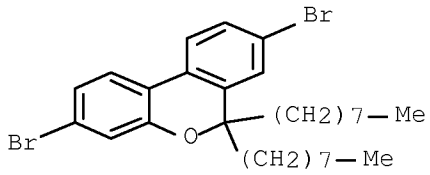
CRN 688013-66-3
CMF C29 H40 Br2 O



L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:99991 CAPLUS Full-text

Document Number
144:172274

Title
Polymeric compounds for thin polymer film devices

Author/Inventor
Ueda, Masato

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 72 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

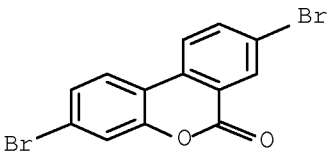
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006011643	A1	20060202	WO 2005-JP14156	20050727
JP 2006063334	A	20060309	JP 2005-217025	20050727
DE 112005001823	T5	20070606	DE 2005-112005001823	20050727
GB 2432837	A	20070606	GB 2007-3688	20050727
GB 2432837	B	20080820		
CN 1989169	A	20070627	CN 2005-80025103	20050727
US 20080003422	A1	20080103	US 2007-572513	20070123
KR 2007047314	A	20070504	KR 2007-704336	20070223

Abstract
Title polymeric compds. with number average mol. weight 103-108 comprise repeating units I and II, wherein Ar1, Ar2 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), or SO2 (X1 ≠ X2); Y = O or S; R9 = halogen, alkyl, or alkyloxy; m = 0 or 1; n, o = 1-6 integer; and p = 0-2 integer. Thus, 6.65 g 2,7-dibromofluorenone was dissolved in 140 mL 1:1 mixture of trifluoroacetic acid/chloroform, sodium perborate monohydrate was added therein, stirred for 20 h, 1.00 g of the resulting 3,8-dibromo-6H-dibenzo[b,d]pyran-6-one was stirred with octyl magnesium bromide, ring-closed with p-toluenesulfonic acid monohydrate, and reacted with bis(pinacolato)diborane to give 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H- dibenzo[b,d]pyran, 0.62 g of which was reacted with 0.29 g 5,5'-dibromo-2,2'-bithiophene in the presence of tetrakis(triphenylphosphine)palladium for 16.3 h to give a copolymer, 0.2% solution of the resulting copolymer in chloroform was applied on a poly(3,4-ethylenedioxythiophene) /polystyrenesulfonic acid-coated ITO/glass plate, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give a thin film device, showing short-circuit current 43 μA/cm2 and open circuit voltage 1.75 V.

Hit Structure

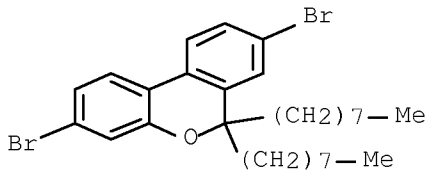
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:324209 CAPLUS Full-text

Document Number
142:374970

Title
Polymer light-emitting material and polymer light-emitting device

Author/Inventor
Nakatani, Tomoya; Sekine, Chizu; Mikami, Satoshi; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 111 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2005033174	A1	20050414	WO 2004-JP14569	20040928
DE 112004001856	T5	20060727	DE 2004-112004001856	20040928
GB 2424895	A	20061011	GB 2006-8519	20040928
GB 2424895	B	20080709		
CN 1863838	A	20061115	CN 2004-80028951	20040928
JP 2005126705	A	20050519	JP 2004-286813	20040930
US 20070051922	A1	20070308	US 2006-573839	20060329
KR 2006115861	A	20061110	KR 2006-708210	20060428

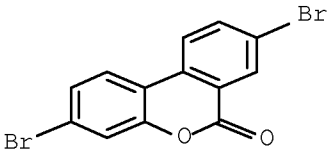
Abstract

Disclosed is a polymer light-emitting material containing a polymer compound with number average mol. weight of 103-108 composed of repeating units I or II and exhibiting light emission from the triplet excited state, wherein Ar1, Ar2, Ar3, Ar4 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), SO2, CR1R2, SiR3R4, NR5, BR6, PR7, or P(:O)R8 (X1 and Ar2 are bonded with adjacent carbon atoms in the aromatic ring of Ar1 and X2 and Ar1 are bonded with adjacent carbon atoms in the aromatic ring of Ar2); X3, X4 = independently N, B, P, CR9, or SiR10 (X3 and Ar4 are bonded with adjacent atoms in the aromatic ring of Ar3 and X4 and Ar3 are bonded with adjacent atoms in the aromatic ring of Ar4); and R1-10 = H, halogen, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylakylthio, acyl, acyloxy, amide, acidic imide, imide residue, amino, substituted amino, silyl, silyloxy, silylthio, or silylamino, monovalent heterocyclic, heteroaryloxy, heteroarylthio, arylalkenyl, arylethynyl, carboxy, alkoxycarbonyl, aryloxycarbonyl, arylalkyloxycarbonyl, heteroaryloxycarbonyl, or cyano group (R1 and R2, R3 and R4 may be bonded each other to form a ring). Thus, 6.65 g 2,7-dibromo-9-fluorenone was treated with sodium perborate monohydrate, reacted with 2,2'-dibromo-5,5'-bis(octyloxy)-1,1'-biphenyl, treated with p-toluenesulfonic acid monohydrate to give 3,8-dibromo-3',6'-bis(octyloxy)-spiro[6H-dibenzo[b,d]pyran-6,9'- [9H]fluorene], 0.37 g of which was polymerized with 0.28 g 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (preparation given) to give a copolymer with number average mol. weight 2.8 + 104 and weight average mol. weight 1.4 + 105, which was mixed with 5% (2,4-pentanedionato-κO,κO')bis[2-(2-pyridinyl- κN)benzo[b]thien-3-yl-κC]-iridium, applied on Baytron P/ITO/glass substrate, dried at 80° for 1 h, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give an electroluminescent element giving emission at 620 nm.

Hit Structure

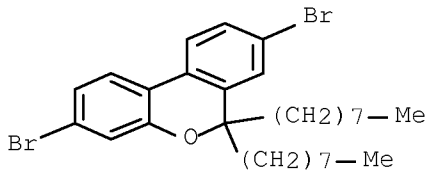
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



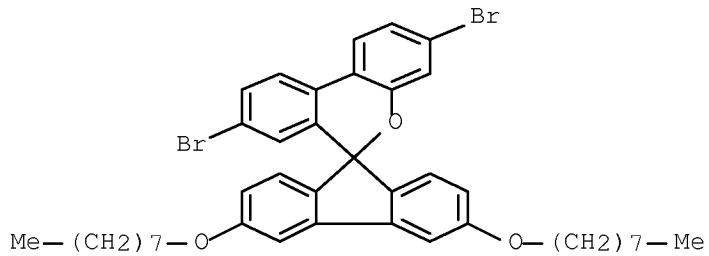
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)



CAS Registry Number
849693-56-7 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM

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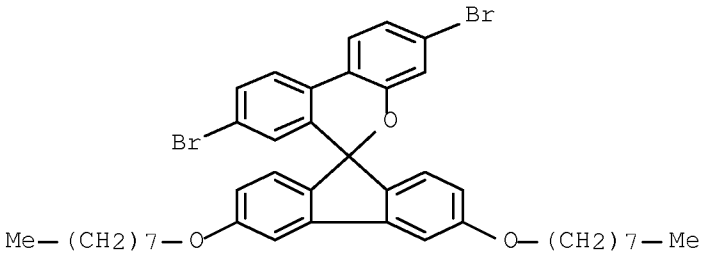
CRN 688013-72-1
CMF C41 H46 Br2 O3



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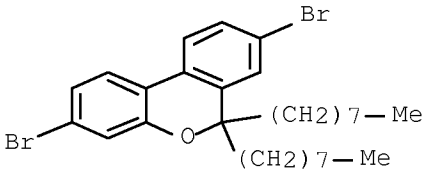


L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:324147 CAPLUS Full-text

Document Number
142:392812

Title
Aromatic compounds having condensationable functional groups useful as monomers

Author/Inventor
Kobayashi, Satoshi; Mikami, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 91 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

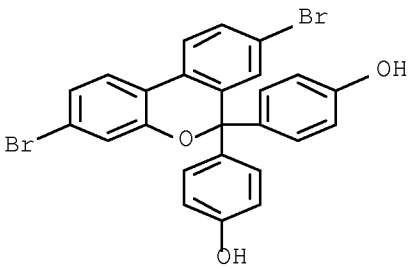
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033090	A1	20050414	WO 2004-JP15001	20041005
JP 2005132829	A	20050526	JP 2004-292337	20041005
US 20070063190	A1	20070322	US 2006-574563	20060404

Abstract
The present invention relates to aromatic compds. I, II, III, and IV, wherein Ar1, Ar3 = tetravalent aromatic hydrocarbon or tetravalent heterocyclic group; Ar2, Ar4, Ar5, Ar6, Ar7 = trivalent aromatic hydrocarbon or trivalent heterocyclic group; A1 = Z1, Z2Z3 or Z4:Z5; Z1, Z2, Z3 = O or S; Z4, Z5 = N, B, or P; and X1, X2, X3, X4, X9, X10, X11, X12 = halogen atom. Thus, 7.0 g 2,2',5,5'-tetramethoxy-1,1'-biphenyl was reacted with 6.8 g N-chlorosuccinimide, treated with boron tribromide, 4.8 g of the resulting 4,4'-dichloro-2,2',5,5'-tetrahydroxy-1,1'-biphenyl was treated with o-dichlorobenzene for 13 h to give 3,7-dichloro-2,8-dibenzofurandiol.

Hit Structure

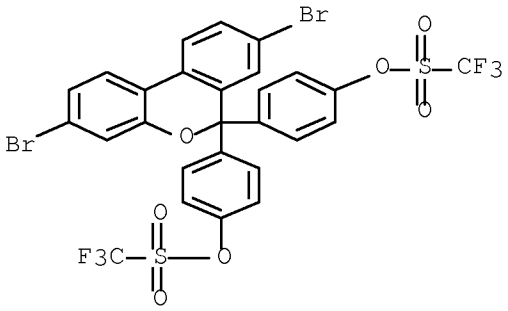
CAS Registry Number
849693-50-1 CAPLUS

Chemical or Trade Name
Phenol, 4,4'-(3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)bis- (9CI) (CA INDEX NAME)



CAS Registry Number
849693-51-2 CAPLUS

Chemical or Trade Name
Methanesulfonic acid, trifluoro-, (3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)di-4,1-phenylene ester (9CI) (CA INDEX NAME)



L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2004:392502 CAPLUS Full-text

Document Number
140:415047

Title
High-molecular compounds and polymer light-emitting devices made by using the same

Author/Inventor
Doi, Shuji; Kobayashi, Satoshi; Noguchi, Takanobu

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 131 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

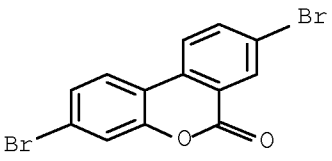
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039859	A1	20040513	WO 2003-JP12697	20031003
JP 2004168999	A	20040617	JP 2003-343244	20031001
AU 2003268752	A1	20040525	AU 2003-268752	20031003
EP 1571170	A1	20050907	EP 2003-748697	20031003
US 20080138651	A1	20080612	US 2005-532937	20050428

Abstract
The invention relates to a high-mol. compds. comprising repeating units represented by the general formula I or II and having number-average mol. wts. of 103-108 in terms of polystyrene: (1) [wherein Ar1 and Ar2 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X1 and X2 are each independently O, S, C(= O), S(= O), SO2, C(R1)(R2), Si(R3)(R4), N(R5), B(R6), P(R7), or P(= O)(R8), with the provisos that X1 and X2 must not be the same and that X1 and Ar2 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar1, and X2 and Ar1 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar2] (2) [wherein Ar3 and Ar4 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X3 and X4 are each independently N, B, P, C(R9), or Si(R10), with the provisos that X3 and X4 must not be the same and that X3 and Ar4 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar3, and X4 and Ar3 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar4].

Hit Structure

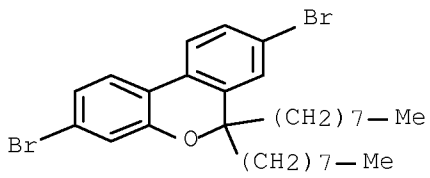
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



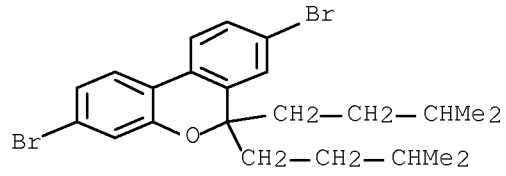
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



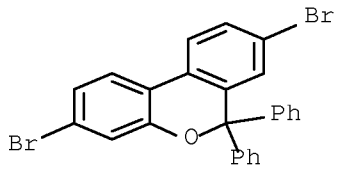
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



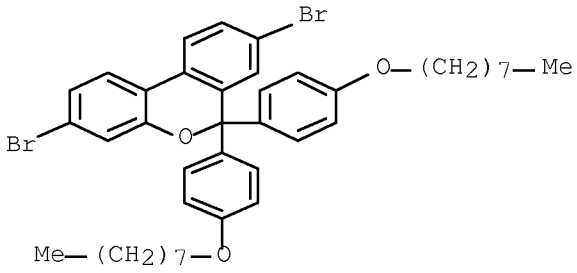
CAS Registry Number
688013-68-5 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-diphenyl- (CA INDEX NAME)



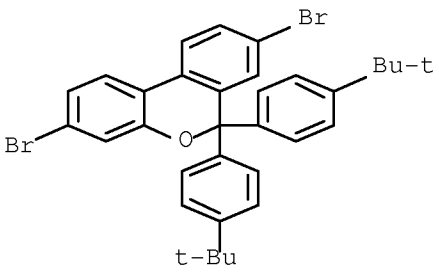
CAS Registry Number
688013-69-6 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]- (CA INDEX NAME)



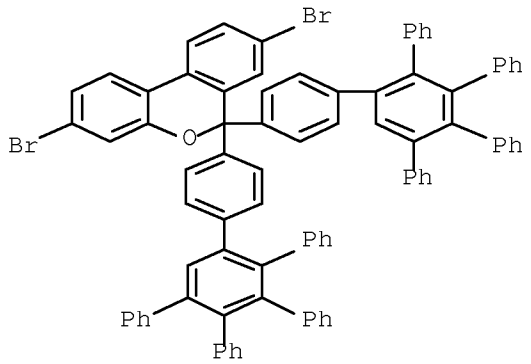
CAS Registry Number
688013-70-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



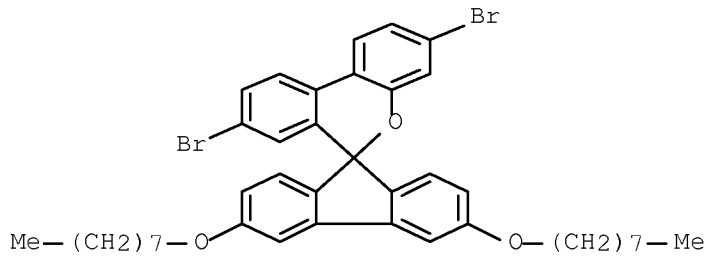
CAS Registry Number
688013-71-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)- (9CI) (CA INDEX NAME)



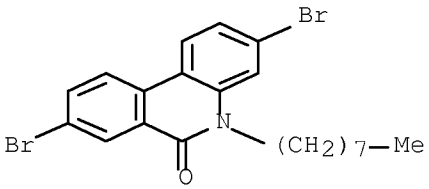
CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene], 3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)



CAS Registry Number
688013-77-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dibromo-5-octyl- (CA INDEX NAME)



CAS Registry Number
688013-78-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, homopolymer (9CI) (CA INDEX NAME)

CM
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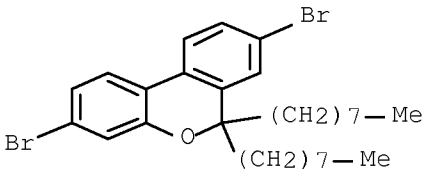
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
688013-79-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 1,4-dibromo-2,5-bis(decyloxy)benzene (9CI) (CA INDEX NAME)

CM
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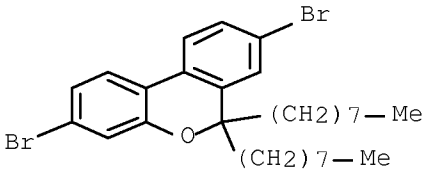
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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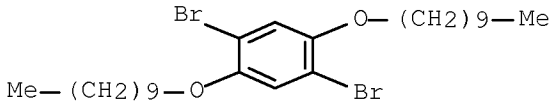
CRN 152269-98-2
CMF C26 H44 Br2 O2



CAS Registry Number
688013-80-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene (9CI) (CA INDEX NAME)

CM
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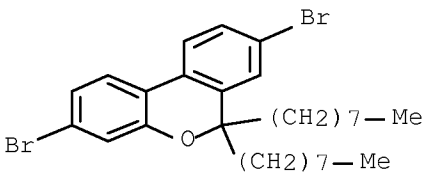
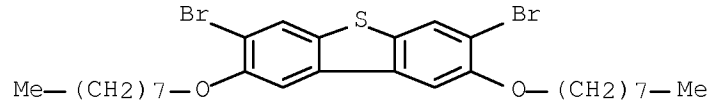
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
   2

CRN 599212-67-6
CMF C28 H38 Br2 O2 S

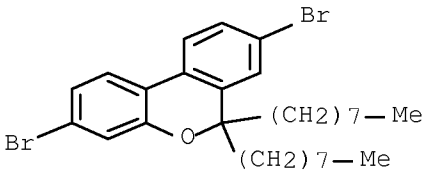


CAS Registry Number
688013-81-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzofuran (9CI) (CA INDEX NAME)

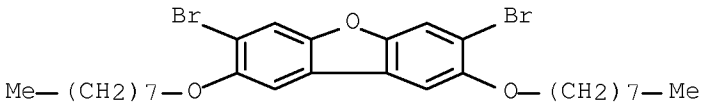
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 599212-92-7
CMF C28 H38 Br2 O3

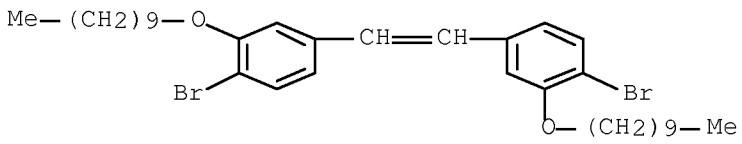


CAS Registry Number
688013-83-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,1'-(1,2-ethenediyl)bis[4-bromo-3-(decyloxy)benzene] (9CI) (CA INDEX
NAME)

CM
1

CRN 688013-82-3
CMF C34 H50 Br2 O2



CM
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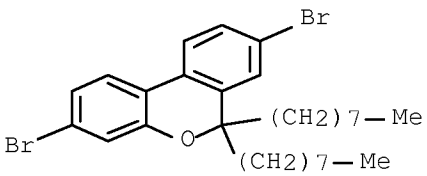
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
688013-84-5 CAPLUS

Chemical or Trade Name
Benzenamine, N,N-bis(4-bromophenyl)-4-(1-methylpropyl)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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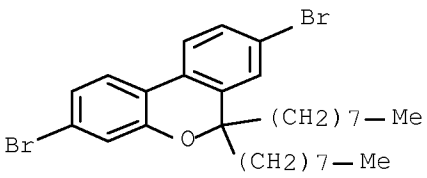
CRN 688013-66-3
CMF C29 H40 Br2 O



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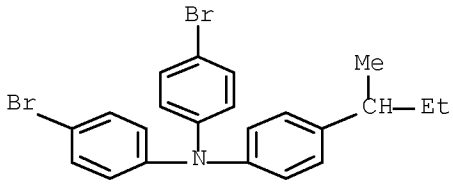
CRN 287976-94-7
CMF C22 H21 Br2 N



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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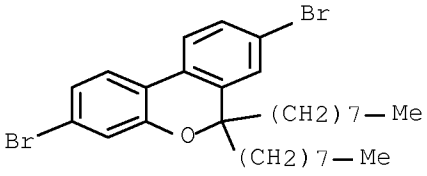
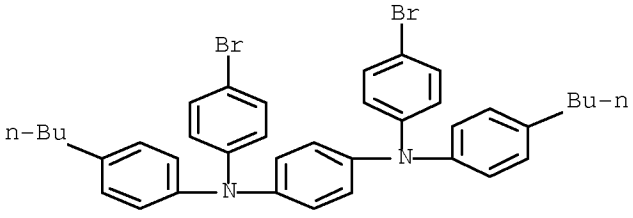
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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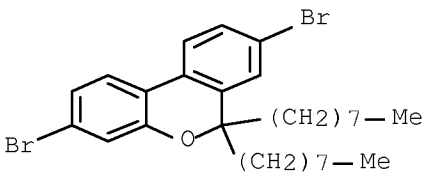
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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CRN 372200-89-0
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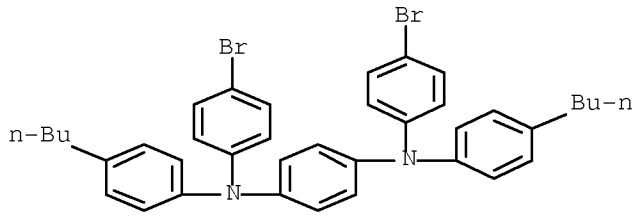

CAS Registry Number
688013-86-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-,
polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene and
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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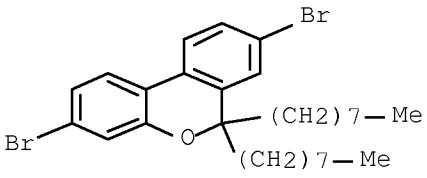
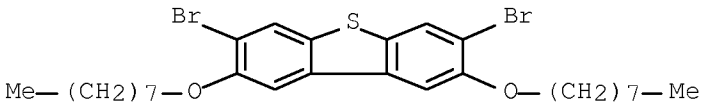
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 599212-67-6
CMF C28 H38 Br2 O2 S



CM
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CRN 372200-89-0
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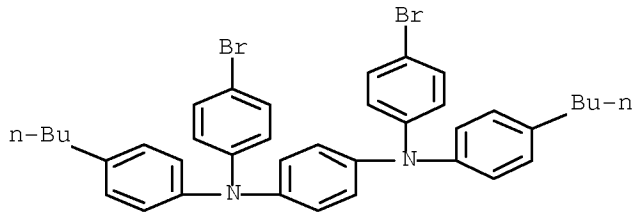


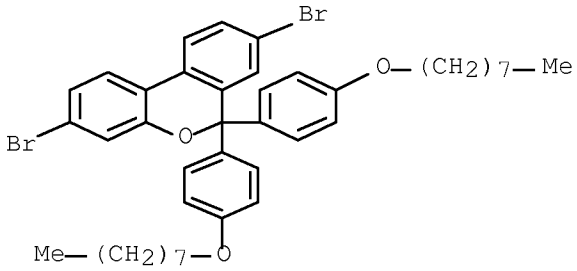
CAS Registry Number
688013-87-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-,
homopolymer (9CI) (CA INDEX NAME)

CM
   1

CRN 688013-69-6
CMF C41 H48 Br2 O3



CAS Registry Number
688013-88-9 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-,
polymer with 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-6H-dibenzo[b,d]pyran
(9CI) (CA INDEX NAME)

CM
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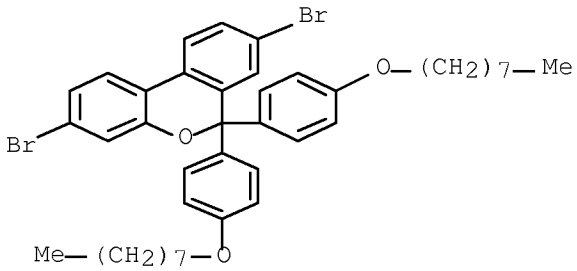
CRN 688013-69-6
CMF C41 H48 Br2 O3



CM
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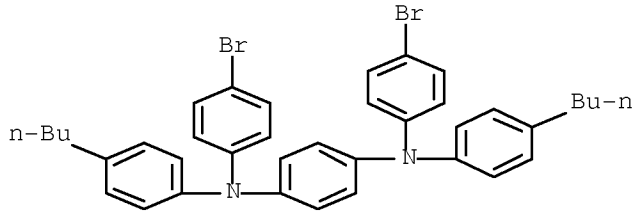
CMF C38 H38 Br2 N2



CAS Registry Number
688013-89-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-
terphenyl]-4-yl)-, homopolymer (9CI) (CA INDEX NAME)

CM
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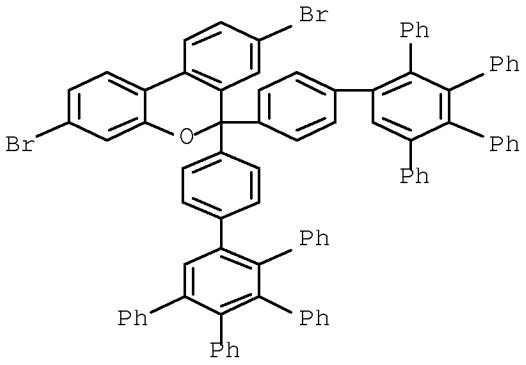
CRN 688013-71-0
CMF C85 H56 Br2 O

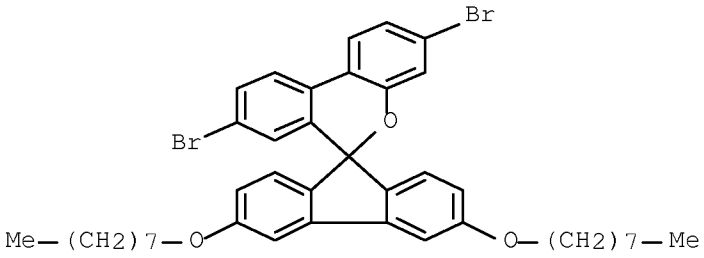


CAS Registry Number
688013-90-3 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, homopolymer (9CI) (CA INDEX NAME)

CM
  1

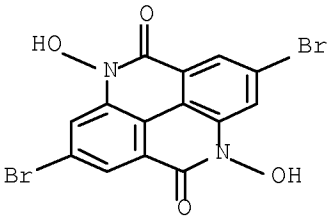
CRN 688013-72-1
CMF C41 H46 Br2 O3



. L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1980:110888 CAPLUS Full-text
Document Number
92:110888
Title
Studies of phenanthridinone and tetrahydrodiazapyrene. 2. Synthesis of 2,7-diamino-5,10-dioxo-4,5,9,10-tetrahydro-4,9- diazapyrene and its derivatives
Author/Inventor
Migachev, G. I.; Terent'ev, A. M.; Lisoded, V. I.
Patent Assignee/Corporate Source
Nauchno-Issled. Inst. Plast. Mass, Moscow, 111112, USSR
Source
Khimiya Geterotsiklicheskikh Soedinenii (**1979**), (12), 1672-7 CODEN: KGSSAQ; ISSN: 0453-8234
Document Type
Journal
Language
Russian
Abstract
Treatment of acid I with SnCl2 gave 61% diazapyrene II (R = NH2); whereas the hydrogenation of I over Ni gave 88% III (R = NH2). II (R = NH2) was refluxed with Ac2O to give 91% IV (R = H); IV (R = Ac) could not be obtained from II (R = NH2) or IV (R = H) but was obtained from I via reduction to the tetramine. II (R = H, Cl, Br, I, CN, NO2, OH) were prepared in 84-91% yield from II (R = NH2), e.g., by diazotization. III (R = H, Cl, Br, I, CN, OH) were also prepared in 80-93% yield.
Hit Structure

CAS Registry Number
72979-18-1 CAPLUS

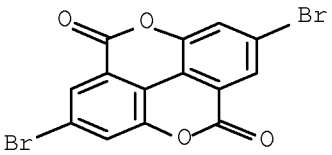
Chemical or Trade Name
Pyrido[2,3,4,5-lmn]phenanthridine-5,10-dione,
2,7-dibromo-4,9-dihydro-4,9-dihydroxy- (CA INDEX NAME)



. L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1979:540744 CAPLUS Full-text
Document Number
91:140744
Title
Synthesis of 2,7-disubstituted 5,10-dioxo-4,5,9,10-tetrahydro-4,9-dioxopyrenes
Author/Inventor
Migachev, G. I.
Patent Assignee/Corporate Source
Nauchno-Issled. Inst. Plast. Mass., Moscow, USSR
Source
Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D. I. Mendeleeva (**1979**), 24(3), 307-8 CODEN: ZVKOA6; ISSN: 0373-0247
Document Type
Journal
Language
Russian
Abstract
Nitrating o-HO2CC6H4C6H4CO2H-o with HNO3-H2SO4 at 100° gave 90% I, which was hydrogenated over Raney Ni in DMF to give 80-5% II (R = NH2). Diazotization of II (R = NH2) followed by treatment with hypophosphorous acid gave 66% II (R = H). II (R = Cl, Br, iodo, CN, NHAc, OH, OAc, NO2) were prepared in 73-88% yield similarly.
Hit Structure

CAS Registry Number
71540-29-9 CAPLUS

Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-5,10-dione, 2,7-dibromo- (9CI) (CA
INDEX NAME)

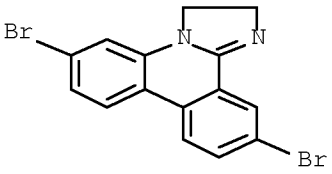


. L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1972:539956 CAPLUS Full-text
Document Number
77:139956
Title
Facile synthesis of 2,3-dihydroimidazo-and 1,2,3,4-tetrahydropyrimido[1,2-f]phenanthridines
Author/Inventor
Pan, Hsi-Lung; Fletcher, T. Lloyd
Patent Assignee/Corporate Source
Sch. Med., Univ. Washington, Seattle, WA, USA
Source
Journal of Heterocyclic Chemistry (**1972**), 9(4), 859-64 CODEN: JHTCAD; ISSN: 0022-152X
Document Type
Journal

Language
English
Abstract
When 6-(2-hydroxyethyl)amino-,6-(3-hydroxypropyl)amino-, or 6-[2-(1-hydroxybutyl) aminophenanthridines, dissolved in concentrated H2SO4, were treated with nitrosylsulfuric acid at 0-25°, then diluted with H2O and basified with aqueous NaOH at 65-86°, 2,3-dihydroimidazo-, 1,2,3,4-tetrahydropyrimido-, or 2,3-dehydro-2- ethylimidazo [1,2-f phenanthridines (I, II, and III, R1 = H, Cl, NO2, R2 = H, Cl, Br, R3 = H, Cl, Br, NO2, NH2, R4 = H, Cl, Br) were obtained resp. in good yields. Structures were substantiated by ir spectroscopy. The 6-ω-hydroxyalkylamino-phenanthridines were prepared from the 6-chlorophenanthridines. A possible mechanism for the formation of these ring systems is postulated.
Hit Structure

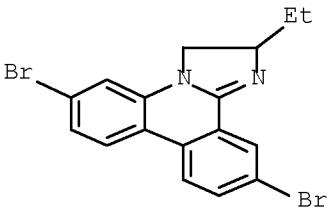
CAS Registry Number
37992-13-5 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dibromo-2,3-dihydro- (CA INDEX NAME)



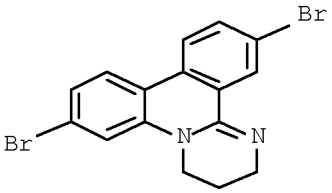
CAS Registry Number
37994-68-6 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dibromo-2-ethyl-2,3-dihydro- (CA INDEX NAME)



CAS Registry Number
38181-11-2 CAPLUS

Chemical or Trade Name
2H-Pyrimido[1,2-f]phenanthridine, 7,12-dibromo-3,4-dihydro-, hydrobromide (1:1) (CA INDEX NAME)



● HBr

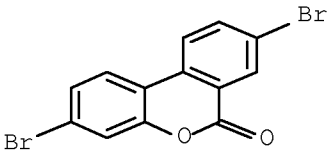
L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1968:104896 CAPLUS Full-text
Document Number
68:104896
Title
Persulfate oxidation of carboxylic acids. III. Oxidation of cis-cinnamic and biphenyl-2-carboxylic acids
Author/Inventor
Brown, Patricia Margaret; Russell, James; Thomson, Ronald H.; Wylie, A. G.
Patent Assignee/Corporate Source
Univ. Aberdeen, Aberdeen, UK
Source
Journal of the Chemical Society [Section] C: Organic (**1968**), (7), 842-8 CODEN: JSOOAX; ISSN: 0022-4952
Document Type
Journal
Language
English
Abstract

3,4-Benzocoumarins were obtained by oxidative cyclization of biphenyl-2-carboxylic acids. The parent benzocoumarin was also formed by oxidation of 2'-substituted acids with elimination of the substituent (OMe, NO2, and CO2H and in low yield Me and Cl) but 2'-benzoylbiphenyl-2-carboxylic acid gave 5-benzoyl-3,4-benzocoumarin and 2'-cyanobiphenyl-2-carboxylic acid yielded fluorenone and phenanthridine-1,10-carbolactone. Similar oxidns. of cis-cinnamic acids gave poor yields of coumarins, markedly increased by the presence of an o-methoxy group. The mechanisms of these reactions are discussed. 47 references.

Hit Structure

CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



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/ Structure 236 in file .gra /


Structure attributes must be viewed using STN Express query preparation.


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 79.5% PROCESSED     2000 ITERATIONS                             4 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       47312 TO    53328
PROJECTED ANSWERS:              4 TO      234

L9            4 SEA SSS SAM L8

=> d scan
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L9 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
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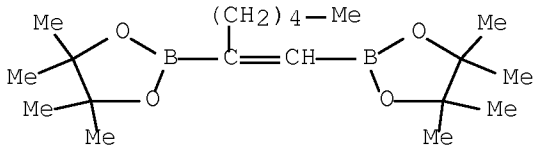

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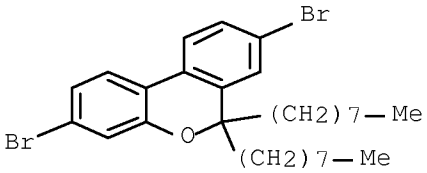
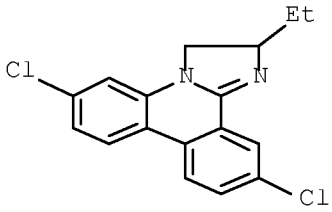


L9 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
Imidazo[1,2-f]phenanthridine, 6,11-dichloro-2-ethyl-2,3-dihydro-
Hit Structure



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L9 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-, homopolymer (9CI)
Hit Structure
CM
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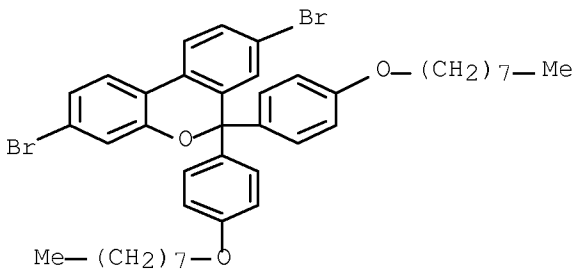
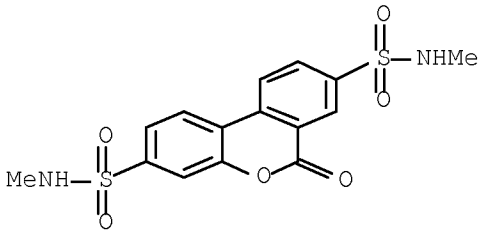


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L9 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
Author/Inventor
INDEX NAME NOT YET ASSIGNED
Hit Structure



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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L12 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:655771 CAPLUS Full-text

Document Number
145:124968

Title
Polymer compound and its use in heat-resistant polymer light-emitting device

Author/Inventor
Kobayashi, Shigeya; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 154 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006070848	A1	20060706	WO 2005-JP24011	20051221
JP 2006182920	A	20060713	JP 2004-378517	20041228
GB 2437213	A	20071017	GB 2007-14555	20051221
DE 112005003270	T5	20080410	DE 2005-112005003270	20051221
US 20080145571	A1	20080619	US 2007-722225	20070620
KR 2007090041	A	20070904	KR 2007-717119	20070725
CN 101124259	A	20080213	CN 2005-80048421	20070817

Abstract
Disclosed is a polymer compound characterized by containing a structure represented by the following formula I (ring A and ring B independently represent an optionally substituted aromatic hydrocarbon ring, and ring C represents an alicyclic hydrocarbon which contains no fused aromatic compound while having at least one substituent; the alicyclic hydrocarbon may contain a heteroatom).

Hit Structure

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CAS Registry Number
896732-77-7  CAPLUS


Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
5,9-dibromo-3',3',5',5'-tetramethylspiro[7H-benzo[c]fluorene-7,1'-
cyclohexane] (9CI)  (CA INDEX NAME)

CM
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CRN  896732-73-3
CMF  C26 H26 Br2
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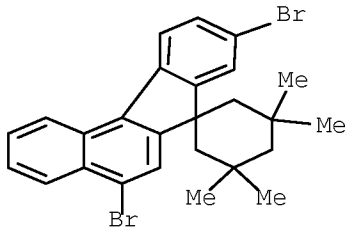


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CRN  688013-66-3
CMF  C29 H40 Br2 O
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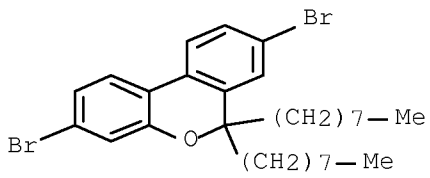


L12 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2006:99991 CAPLUS Full-text

Document Number
144:172274

Title
Polymeric compounds for thin polymer film devices

Author/Inventor
Ueda, Masato

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 72 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

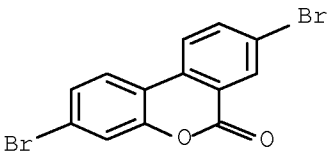
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006011643	A1	20060202	WO 2005-JP14156	20050727
JP 2006063334	A	20060309	JP 2005-217025	20050727
DE 112005001823	T5	20070606	DE 2005-112005001823	20050727
GB 2432837	A	20070606	GB 2007-3688	20050727
GB 2432837	B	20080820		
CN 1989169	A	20070627	CN 2005-80025103	20050727
US 20080003422	A1	20080103	US 2007-572513	20070123
KR 2007047314	A	20070504	KR 2007-704336	20070223

Abstract
Title polymeric compds. with number average mol. weight 103-108 comprise repeating units I and II, wherein Ar1, Ar2 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), or SO2 (X1 ≠ X2); Y = O or S; R9 = halogen, alkyl, or alkyloxy; m = 0 or 1; n, o = 1-6 integer; and p = 0-2 integer. Thus, 6.65 g 2,7-dibromofluorenone was dissolved in 140 mL 1:1 mixture of trifluoroacetic acid/chloroform, sodium perborate monohydrate was added therein, stirred for 20 h, 1.00 g of the resulting 3,8-dibromo-6H-dibenzo[b,d]pyran-6-one was stirred with octyl magnesium bromide, ring-closed with p-toluenesulfonic acid monohydrate, and reacted with bis(pinacolato)diborane to give 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H- dibenzo[b,d]pyran, 0.62 g of which was reacted with 0.29 g 5,5'-dibromo-2,2'-bithiophene in the presence of tetrakis(triphenylphosphine)palladium for 16.3 h to give a copolymer, 0.2% solution of the resulting copolymer in chloroform was applied on a poly(3,4-ethylenedioxythiophene) /polystyrenesulfonic acid-coated ITO/glass plate, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give a thin film device, showing short-circuit current 43 μA/cm2 and open circuit voltage 1.75 V.

Hit Structure

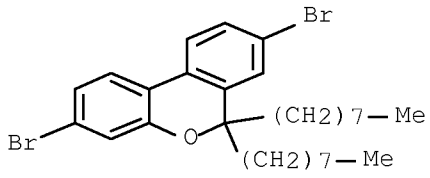
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



L12 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2005:324209 CAPLUS Full-text

Document Number
142:374970

Title
Polymer light-emitting material and polymer light-emitting device

Author/Inventor

Nakatani, Tomoya; Sekine, Chizu; Mikami, Satoshi; Kobayashi, Satoshi

Patent Assignee/Corporate Source

Sumitomo Chemical Company, Limited, Japan

Source

PCT Int. Appl., 111 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033174	A1	20050414	WO 2004-JP14569	20040928
DE 112004001856	T5	20060727	DE 2004-112004001856	20040928
GB 2424895	A	20061011	GB 2006-8519	20040928
GB 2424895	B	20080709		
CN 1863838	A	20061115	CN 2004-80028951	20040928
JP 2005126705	A	20050519	JP 2004-286813	20040930
US 20070051922	A1	20070308	US 2006-573839	20060329
KR 2006115861	A	20061110	KR 2006-708210	20060428

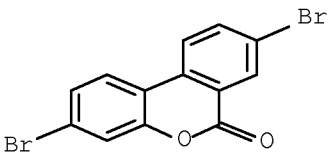
Abstract

Disclosed is a polymer light-emitting material containing a polymer compound with number average mol. weight of 103-108 composed of repeating units I or II and exhibiting light emission from the triplet excited state, wherein Ar1, Ar2, Ar3, Ar4 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), SO2, CR1R2, SiR3R4, NR5, BR6, PR7, or P(:O)R8 (X1 and Ar2 are bonded with adjacent carbon atoms in the aromatic ring of Ar1 and X2 and Ar1 are bonded with adjacent carbon atoms in the aromatic ring of Ar2); X3, X4 = independently N, B, P, CR9, or SiR10 (X3 and Ar4 are bonded with adjacent atoms in the aromatic ring of Ar3 and X4 and Ar3 are bonded with adjacent atoms in the aromatic ring of Ar4); and R1-10 = H, halogen, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylakylthio, acyl, acyloxy, amide, acidic imide, imide residue, amino, substituted amino, silyl, silyloxy, silylthio, or silylamino, monovalent heterocyclic, heteroaryloxy, heteroarylthio, arylalkenyl, arylethynyl, carboxy, alkoxycarbonyl, aryloxycarbonyl, arylalkyloxycarbonyl, heteroaryloxycarbonyl, or cyano group (R1 and R2, R3 and R4 may be bonded each other to form a ring). Thus, 6.65 g 2,7-dibromo-9-fluorenone was treated with sodium perborate monohydrate, reacted with 2,2'-dibromo-5,5'-bis(octyloxy)-1,1'-biphenyl, treated with p-toluenesulfonic acid monohydrate to give 3,8-dibromo-3',6'-bis(octyloxy)-spiro[6H-dibenzo[b,d]pyran-6,9'- [9H]fluorene], 0.37 g of which was polymerized with 0.28 g 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (preparation given) to give a copolymer with number average mol. weight 2.8 + 104 and weight average mol. weight 1.4 + 105, which was mixed with 5% (2,4-pentanedionato-κO,κO')bis[2-(2-pyridinyl- κN)benzo[b]thien-3-yl-κC]-iridium, applied on Baytron P/ITO/glass substrate, dried at 80° for 1 h, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give an electroluminescent element giving emission at 620 nm.

Hit Structure

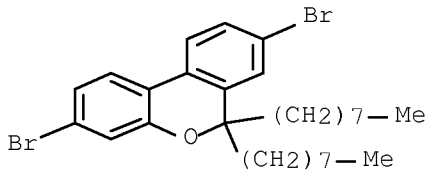
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



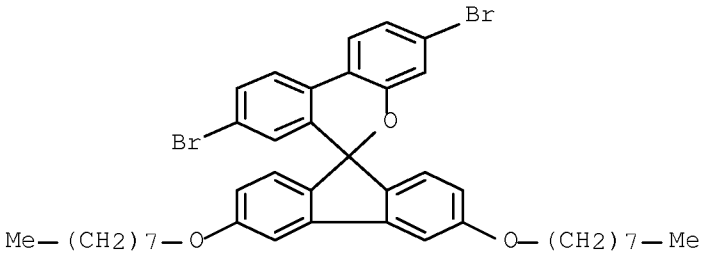
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)



CAS Registry Number
849693-56-7 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

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CRN 688013-72-1
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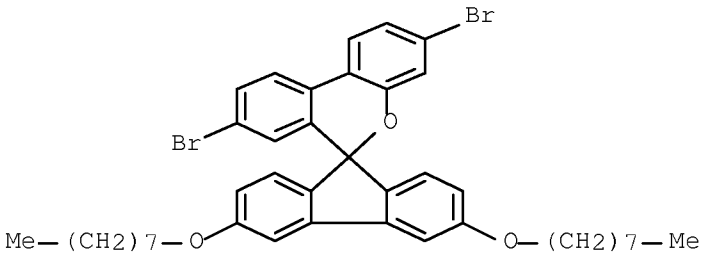

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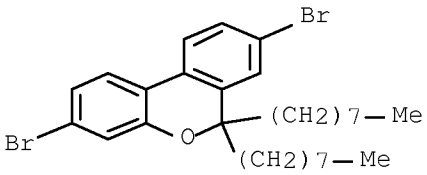
CRN 688013-66-3
CMF C29 H40 Br2 O



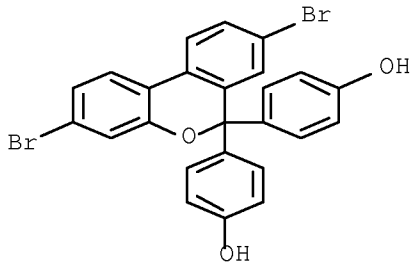
. L12 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
2005:324147 CAPLUS Full-text
Document Number
142:392812
Title
Aromatic compounds having condensationable functional groups useful as monomers
Author/Inventor
Kobayashi, Satoshi; Mikami, Satoshi
Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan
Source
PCT Int. Appl., 91 pp. CODEN: PIXXD2
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033090	A1	20050414	WO 2004-JP15001	20041005
JP 2005132829	A	20050526	JP 2004-292337	20041005
US 20070063190	A1	20070322	US 2006-574563	20060404

Abstract
The present invention relates to aromatic compds. I, II, III, and IV, wherein Ar1, Ar3 = tetravalent aromatic hydrocarbon or tetravalent heterocyclic group; Ar2, Ar4, Ar5, Ar6, Ar7 = trivalent aromatic hydrocarbon or trivalent heterocyclic group; A1 = Z1, Z2Z3 or Z4:Z5; Z1, Z2, Z3 = O or S; Z4, Z5 = N, B, or P; and X1, X2, X3, X4, X9, X10, X11, X12 = halogen atom. Thus, 7.0 g 2,2',5,5'-tetramethoxy-1,1'-biphenyl was reacted with 6.8 g N-chlorosuccinimide, treated with boron tribromide, 4.8 g of the resulting 4,4'-dichloro-2,2',5,5'-tetrahydroxy-1,1'-biphenyl was treated with o-dichlorobenzene for 13 h to give 3,7-dichloro-2,8-dibenzofurandiol.
Hit Structure

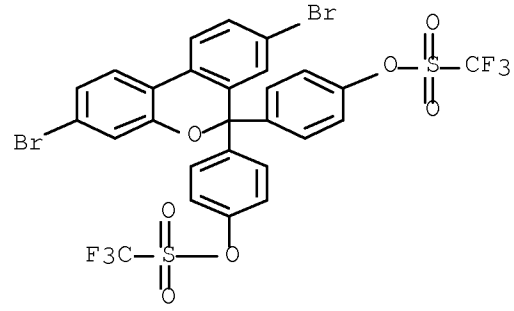
CAS Registry Number
849693-50-1 CAPLUS

Chemical or Trade Name
Phenol, 4,4'-(3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)bis- (9CI) (CA INDEX NAME)



CAS Registry Number
849693-51-2 CAPLUS

Chemical or Trade Name
Methanesulfonic acid, trifluoro-, (3,8-dibromo-6H-dibenzo[b,d]pyran-6-ylidene)di-4,1-phenylene ester (9CI) (CA INDEX NAME)



. L12 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
2004:392502 CAPLUS Full-text

Document Number
140:415047

Title
High-molecular compounds and polymer light-emitting devices made by using the same

Author/Inventor
Doi, Shuji; Kobayashi, Satoshi; Noguchi, Takanobu

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 131 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

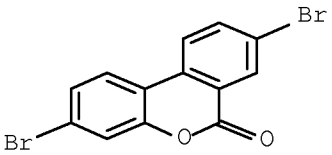
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039859	A1	20040513	WO 2003-JP12697	20031003
JP 2004168999	A	20040617	JP 2003-343244	20031001
AU 2003268752	A1	20040525	AU 2003-268752	20031003
EP 1571170	A1	20050907	EP 2003-748697	20031003
US 20080138651	A1	20080612	US 2005-532937	20050428

Abstract
The invention relates to a high-mol. compds. comprising repeating units represented by the general formula I or II and having number-average mol. wts. of 103-108 in terms of polystyrene: (1) [wherein Ar1 and Ar2 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X1 and X2 are each independently O, S, C(= O), S(= O), SO2, C(R1)(R2), Si(R3)(R4), N(R5), B(R6), P(R7), or P(= O)(R8), with the provisos that X1 and X2 must not be the same and that X1 and Ar2 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar1, and X2 and Ar1 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar2] (2) [wherein Ar3 and Ar4 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X3 and X4 are each independently N, B, P, C(R9), or Si(R10), with the provisos that X3 and X4 must not be the same and that X3 and Ar4 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar3, and X4 and Ar3 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar4].

Hit Structure

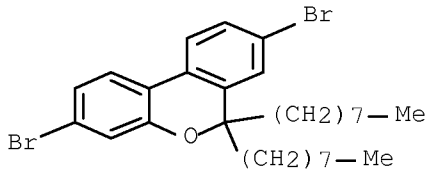
CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



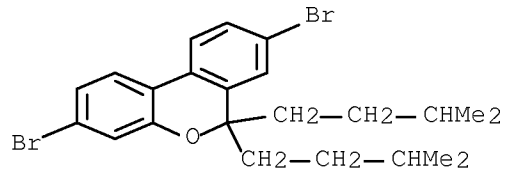
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



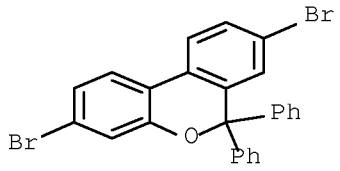
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



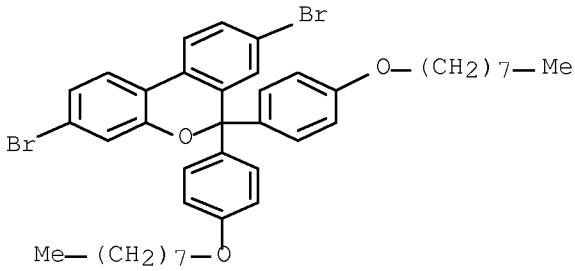
CAS Registry Number
688013-68-5 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-diphenyl- (CA INDEX NAME)



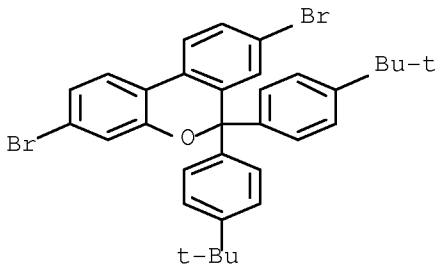
CAS Registry Number
688013-69-6 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]- (CA INDEX NAME)



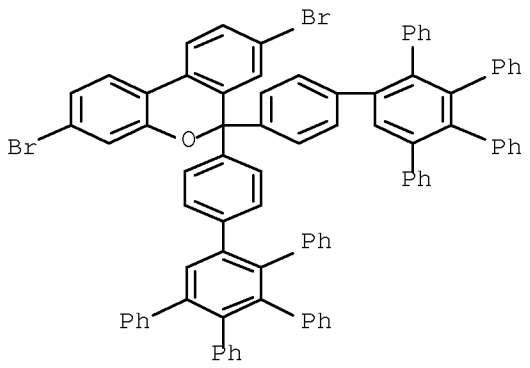
CAS Registry Number
688013-70-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



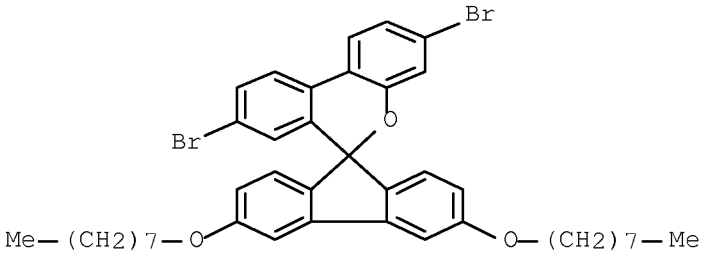
CAS Registry Number
688013-71-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)- (9CI) (CA INDEX NAME)



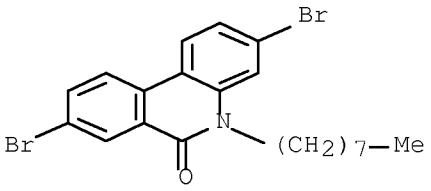
CAS Registry Number
688013-72-1 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)- (CA INDEX NAME)



CAS Registry Number
688013-77-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dibromo-5-octyl- (CA INDEX NAME)



CAS Registry Number
688013-78-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, homopolymer (9CI) (CA
INDEX NAME)

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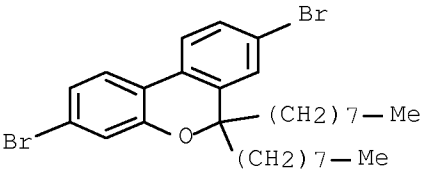
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number

688013-79-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,4-dibromo-2,5-bis(decyloxy)benzene (9CI) (CA INDEX NAME)

CM
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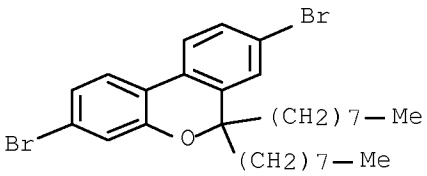
CRN 688013-66-3
CMF C29 H40 Br2 O



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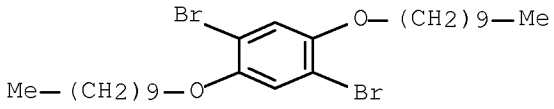
CRN 152269-98-2
CMF C26 H44 Br2 O2



CAS Registry Number
688013-80-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene (9CI) (CA INDEX NAME)

CM
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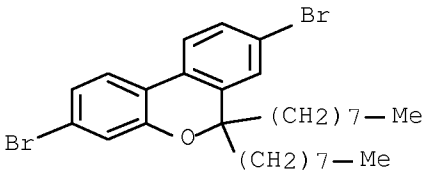
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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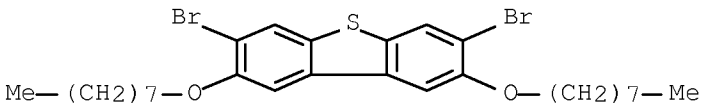
CRN 599212-67-6
CMF C28 H38 Br2 O2 S

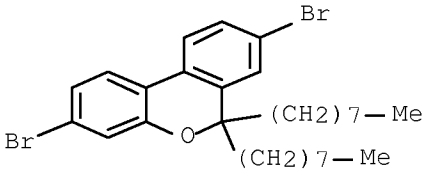


CAS Registry Number
688013-81-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzofuran (9CI) (CA INDEX NAME)

CM
   1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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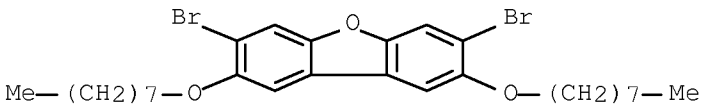
CRN 599212-92-7
CMF C28 H38 Br2 O3



CAS Registry Number
688013-83-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,1'-(1,2-ethenediyl)bis[4-bromo-3-(decyloxy)benzene] (9CI) (CA INDEX
NAME)

CM
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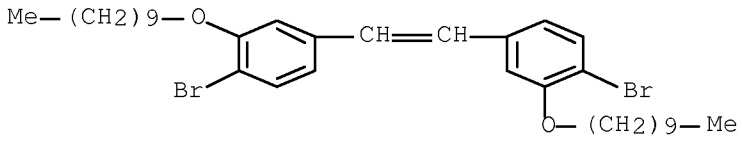
CRN 688013-82-3
CMF C34 H50 Br2 O2



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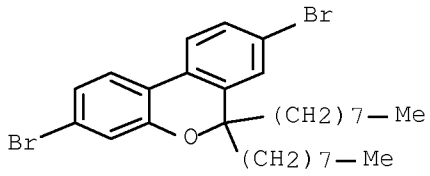
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
688013-84-5 CAPLUS

Chemical or Trade Name
Benzenamine, N,N-bis(4-bromophenyl)-4-(1-methylpropyl)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

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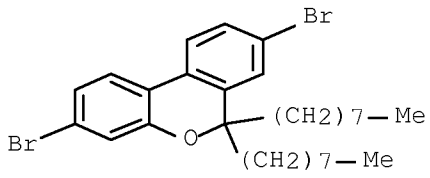
CRN 688013-66-3
CMF C29 H40 Br2 O



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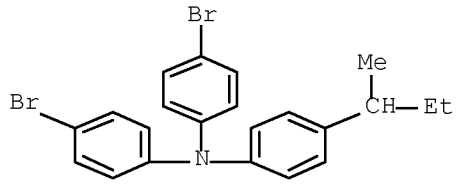
CRN 287976-94-7
CMF C22 H21 Br2 N



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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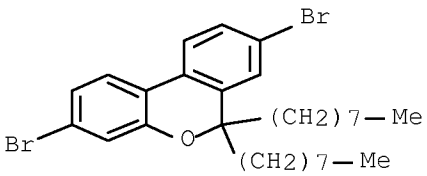
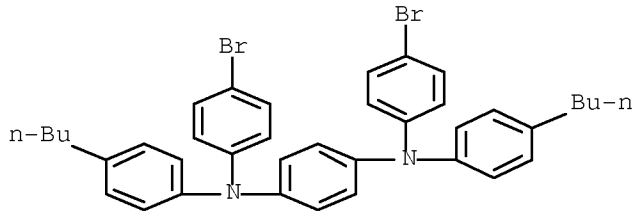
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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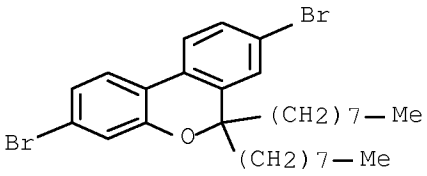
CRN 688013-66-3
CMF C29 H40 Br2 O



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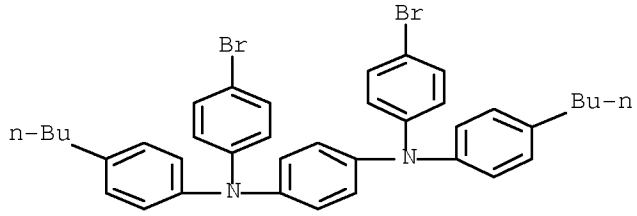
CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-86-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene and

3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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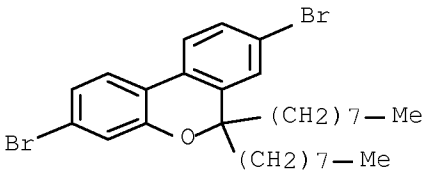
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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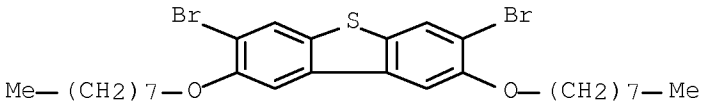
CRN 599212-67-6
CMF C28 H38 Br2 O2 S



CM
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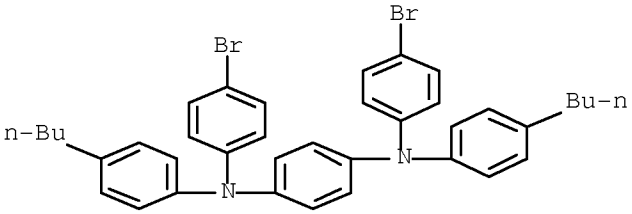
CRN 372200-89-0
CMF C38 H38 Br2 N2

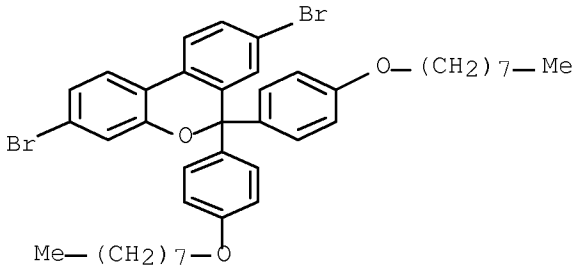


CAS Registry Number
688013-87-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-,
homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-69-6
CMF C41 H48 Br2 O3



CAS Registry Number
688013-88-9 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-,
polymer with 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-6H-dibenzo[b,d]pyran
(9CI) (CA INDEX NAME)

CM
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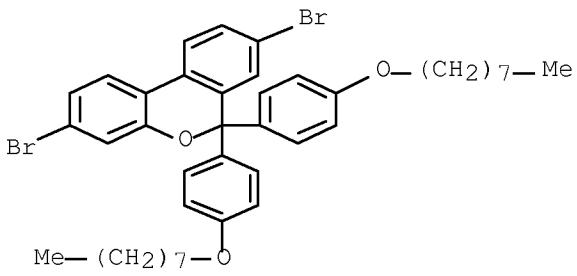

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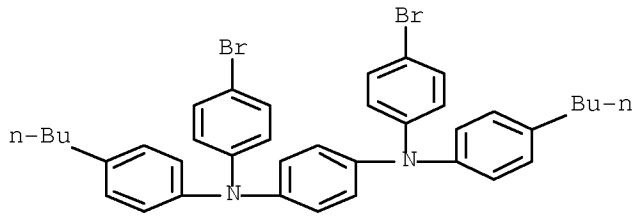

CAS Registry Number
688013-89-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)-, homopolymer (9CI) (CA INDEX NAME)

CM
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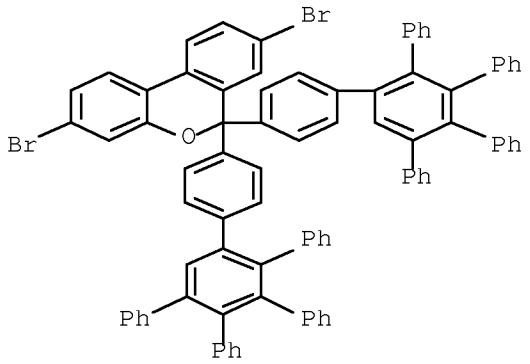
CRN 688013-71-0
CMF C85 H56 Br2 O

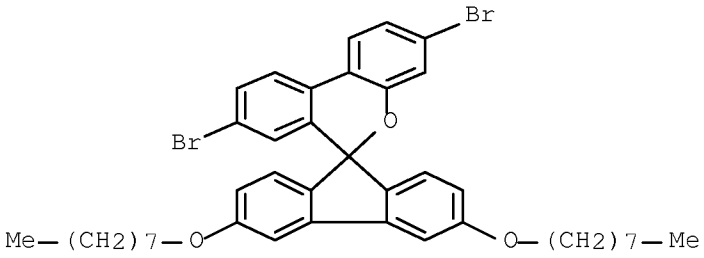


CAS Registry Number
688013-90-3 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene], 3,8-dibromo-3',6'-bis(octyloxy)-, homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-72-1
CMF C41 H46 Br2 O3



L12 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1991:143456 CAPLUS Full-text

Document Number
114:143456

Title
Preparation and formulation of (heterocyclylethynyl)-triazolo[4,3-a]benzodiazepines and -thieno[3,2-f][1,2,4] triazolo [4,3-a][1,4] diazepines and analogs as platelet activating factor antagonists

Author/Inventor
Walser, Armin

Patent Assignee/Corporate Source
Hoffmann-La Roche, Inc., USA

Source
U.S., 52 pp. Cont.-in-part of U.S. Ser. No. 227,948, abandoned. CODEN: USXXAM

Document Type
Patent

Language
English

Patent Information

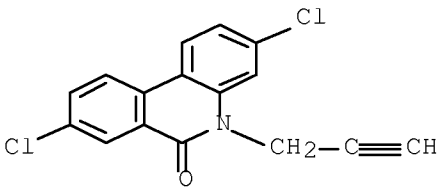
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4959361	A	19900925	US 1988-252964	19881003
ZA 8809116	A	19890830	ZA 1988-9116	19881205
CA 1327570	C	19940308	CA 1988-585981	19881215
DK 8807040	A	19890619	DK 1988-7040	19881216
FI 8805820	A	19890619	FI 1988-5820	19881216
FI 88799	B	19930331		
FI 88799	C	19930712		
AU 8826989	A	19890629	AU 1988-26989	19881216
AU 612441	B2	19910711		
JP 01197484	A	19890809	JP 1988-316555	19881216
JP 07025762	B	19950322		
HU 50823	A2	19900328	HU 1988-6449	19881216
HU 204273	B	19911230		
NO 167920	B	19910916	NO 1988-5597	19881216
NO 167920	C	19911227		
ES 2056889	T3	19941016	ES 1988-121165	19881216
RU 2071962	C1	19970120	RU 1988-4613119	19881216
CN 1034722	A	19890816	CN 1988-108697	19881217
CN 1031057	C	19960221		
RU 2094436	C1	19971027	RU 1992-5010684	19920131

Abstract
The title compds. [I; R1 = alkyl, alkoxy, CF3; R2 = H, alkyl, alkoxy, OH, AcO; R3, R4 = H, Cl, F, alkyl, alkoxy; R5 = R6(CH2)nC.tplbond.C, R7O(CH2)mC.tplbond.C; R6, R7 = aryl, heterocyclyl; X = CH:CH, S; m = 1, 2; n = 0-2; s = 0, 1] were prepared Thus, I (R1 = Me, R2 = R3 = H, R4 = 2-Cl, R5 = iodo, X = S, s = 0) was stirred 20 h with RCH2C.tplbond.CH (R = tetrahydrocarbazolo group Q) in DMF containing Et3N, CuI, Ph3P, and Pd(OAc)2 to give I (R5 = C.tplbond.CCH2Q; R1, R2, R3, R4, X, s = same as above) which had ID50 of 0.006 mg/kg orally against platelet activating factor-induced bronchoconstriction in guinea pigs.

Hit Structure

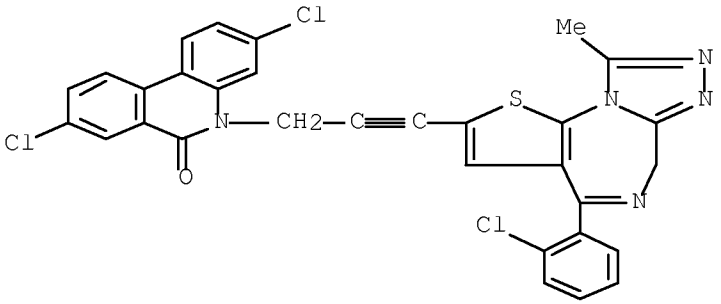
CAS Registry Number
125031-29-0 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-(2-propyn-1-yl)- (CA INDEX NAME)



CAS Registry Number
125030-91-3 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-[3-[4-(2-chlorophenyl)-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-2-yl]-2-propyn-1-yl]- (CA INDEX NAME)



L12 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1991:122305 CAPLUS Full-text

Document Number
114:122305

Title
Triazolobenzo- and triazolothienodiazepines as potent antagonists of platelet activating factor

Author/Inventor
Walser, Armin; Flynn, Thomas; Mason, Carl; Crowley, Herman; Maresca, Catherine; Yaremko, Bob; O'Donnell, Margaret

Patent Assignee/Corporate Source
Roche Res. Cent., Hoffmann-La Roche, Inc., Nutley, NJ, 07110, USA

Source
Journal of Medicinal Chemistry (**1991**), 34(3), 1209-21 CODEN: JMCMAR; ISSN: 0022-2623

Document Type
Journal

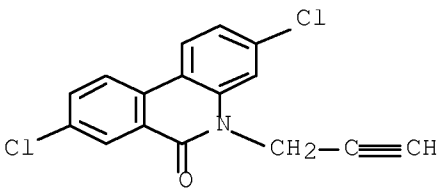
Language
English

Abstract
A series of [1,2,4]triazolo[4,3-a][1,4]benzodiazepines bearing an ethynyl functionality at the 8-position and the isosteric thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepines, e.g., I and II, were prepared and evaluated as antagonists of platelet activating factor (PAF). The effects of substitution were explored in in vitro and in vivo test systems designed to measure PAF-antagonistic activity. The thieno analogs exhibited better oral activity than the corresponding benzodiazepines. The duration of activity upon oral administration was modulated by the substitution on the acetylenic side chain. Triazolothienodiazepines II and III were selected for further pharmacol. evaluation as a result of their good oral potency and exceptionally long duration of action.

Hit Structure

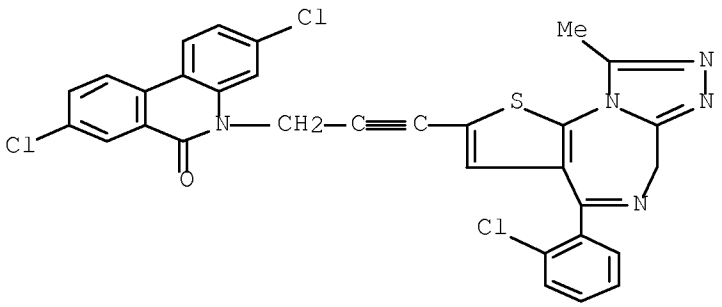
CAS Registry Number
125031-29-0 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-(2-propyn-1-yl)- (CA INDEX NAME)



CAS Registry Number
125030-91-3 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-[3-[4-(2-chlorophenyl)-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-2-yl]-2-propyn-1-yl]- (CA INDEX NAME)



L12 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1990:118862 CAPLUS Full-text

Document Number
112:118862

Title
Preparation and formulation of triazolodiazepine derivatives as platelet activator factor antagonists

Author/Inventor
Walser, Armin

Patent Assignee/Corporate Source
Hoffmann-La Roche, F., und Co. A.-G., Switz.

Source
Eur. Pat. Appl., 70 pp. CODEN: EPXXDW

Document Type
Patent

Language
English

Patent Information

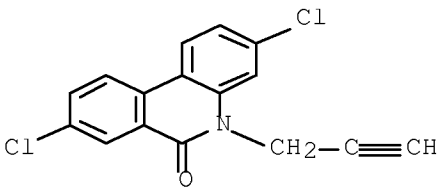
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 320992	A2	19890621	EP 1988-121165	19881216
EP 320992	A3	19910109		
EP 320992	B1	19940727		
ZA 8809116	A	19890830	ZA 1988-9116	19881205
CA 1327570	C	19940308	CA 1988-585981	19881215
DK 8807040	A	19890619	DK 1988-7040	19881216
FI 8805820	A	19890619	FI 1988-5820	19881216
FI 88799	B	19930331		
FI 88799	C	19930712		
AU 8826989	A	19890629	AU 1988-26989	19881216
AU 612441	B2	19910711		
JP 01197484	A	19890809	JP 1988-316555	19881216
JP 07025762	B	19950322		
HU 50823	A2	19900328	HU 1988-6449	19881216
HU 204273	B	19911230		
NO 167920	B	19910916	NO 1988-5597	19881216
NO 167920	C	19911227		
ES 2056889	T3	19941016	ES 1988-121165	19881216
RU 2071962	C1	19970120	RU 1988-4613119	19881216
CN 1034722	A	19890816	CN 1988-108697	19881217
CN 1031057	C	19960221		
RU 2094436	C1	19971027	RU 1992-5010684	19920131

Abstract
Title compds. [I; R1 = alkyl, alkoxy, F3C; R2 = H, alkyl, alkoxy, HO, alkanoyloxy; R3,R4 = H, Cl, F, alkyl, alkoxy; R5 = R6(CH2)nC.tplbond.C, R6,R7 = aryl, heterocyclyl; X = CH:CH, S; m = 1,2; n = 0-2; s = 0,1, with the proviso that when s = 1, R2 ≠ HO, alkoxy, alkanoyloxy; when n = 0, R6 must be attached through a C to C bond, and that R7 is always attached through a C to O bond] their enantiomers, racemates and pharmaceutically acceptable acid addition salts thereof, are prepared I are useful in diseases characterized by excess platelet activating factor (PAF) or for prevention and treatment of cardiovascular disease, pulmonary disease, immunolog. disorder, inflammatory disease, dermatol. disorders and transplant rejection. 4-(2-Chlorophenyl)-2-iodo-9-methyl-6H- thieno[3,2-f][1,2,4]triazolo[4,3-a]diazepine was reacted with 1-(2-propynyl)-1H-indazole to give I (R1 = Me; R2, R4 = H; R3 = 2-Cl; R5 = [3-(1H-indazol-1-yl)-1-propynyl]; X = S; s = 0 (II). II inhibited PAF binding to dog platelets with an IC50 of 1.0 mM and inhibited of PAF-induced bronchoconstriction in guinea pigs with an i.v. ID50 of 0.002 mg/kg. An oral suspension comprised 2-[3-[4-(2-chlorophenyl)-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3- a]diazepin-2-yl]-2-propynyl]-1H-benz[de]isoquinoline-1,3(2H)-dione 5.0, hydroxypropylmethyl cellulose 8.0, polysorbate 80 0.5 g and distilled water to 100 mL.

Hit Structure

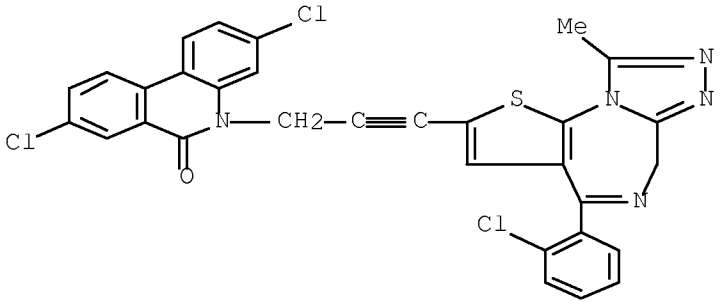
CAS Registry Number
125031-29-0 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-(2-propyn-1-yl)- (CA INDEX NAME)



CAS Registry Number
125030-91-3 CAPLUS

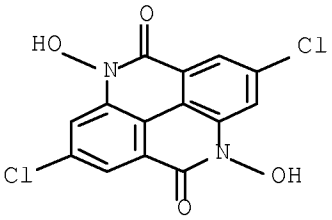
Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dichloro-5-[3-[4-(2-chlorophenyl)-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-2-yl]-2-propyn-1-yl]-
(CA INDEX NAME)



. L12 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1980:110888 CAPLUS Full-text
Document Number
92:110888
Title
Studies of phenanthridinone and tetrahydrodiazapyrene. 2. Synthesis of 2,7-diamino-5,10-dioxo-4,5,9,10-tetrahydro-4,9- diazapyrene and its derivatives
Author/Inventor
Migachev, G. I.; Terent'ev, A. M.; Lisoded, V. I.
Patent Assignee/Corporate Source
Nauchno-Issled. Inst. Plast. Mass, Moscow, 111112, USSR
Source
Khimiya Geterotsiklicheskikh Soedinenii (**1979**), (12), 1672-7 CODEN: KGSSAQ; ISSN: 0453-8234
Document Type
Journal
Language
Russian
Abstract
Treatment of acid I with SnCl2 gave 61% diazapyrene II (R = NH2); whereas the hydrogenation of I over Ni gave 88% III (R = NH2). II (R = NH2) was refluxed with Ac2O to give 91% IV (R = H); IV (R = Ac) could not be obtained from II (R = NH2) or IV (R = H) but was obtained from I via reduction to the tetramine. II (R = H, Cl, Br, I, CN, NO2, OH) were prepared in 84-91% yield from II (R = NH2), e.g., by diazotization. III (R = H, Cl, Br, I, CN, OH) were also prepared in 80-93% yield.
Hit Structure

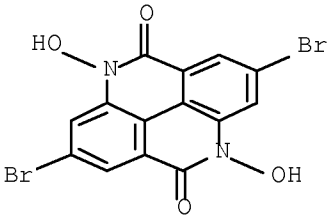
CAS Registry Number
72979-17-0 CAPLUS

Chemical or Trade Name
Pyrido[2,3,4,5-lmn]phenanthridine-5,10-dione,
2,7-dichloro-4,9-dihydro-4,9-dihydroxy- (CA INDEX NAME)



CAS Registry Number
72979-18-1 CAPLUS

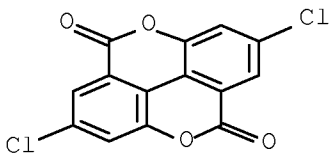
Chemical or Trade Name
Pyrido[2,3,4,5-lmn]phenanthridine-5,10-dione,
2,7-dibromo-4,9-dihydro-4,9-dihydroxy- (CA INDEX NAME)



L12 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
Accession Number
1979:540744 CAPLUS Full-text
Document Number
91:140744
Title
Synthesis of 2,7-disubstituted 5,10-dioxo-4,5,9,10-tetrahydro-4,9-dioxopyrenes
Author/Inventor
Migachev, G. I.
Patent Assignee/Corporate Source
Nauchno-Issled. Inst. Plast. Mass., Moscow, USSR
Source
Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D. I. Mendeleeva (**1979**), 24(3), 307-8 CODEN: ZVKOA6; ISSN: 0373-0247
Document Type
Journal
Language
Russian
Abstract
Nitrating o-HO2CC6H4C6H4CO2H-o with HNO3-H2SO4 at 100° gave 90% I, which was hydrogenated over Raney Ni in DMF to give 80-5% II (R = NH2). Diazotization of II (R = NH2) followed by treatment with hypophosphorous acid gave 66% II (R = H). II (R = Cl, Br, iodo, CN, NHAc, OH, OAc, NO2) were prepared in 73-88% yield similarly.
Hit Structure

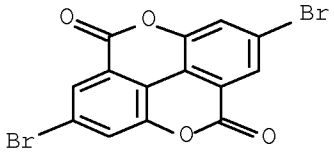
CAS Registry Number
71540-28-8 CAPLUS

Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-5,10-dione, 2,7-dichloro- (9CI)
(CA INDEX NAME)



CAS Registry Number
71540-29-9 CAPLUS

Chemical or Trade Name
[1]Benzopyrano[5,4,3-cde][1]benzopyran-5,10-dione, 2,7-dibromo- (9CI) (CA INDEX NAME)



L12 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1972:539956 CAPLUS Full-text

Document Number
77:139956

Title
Facile synthesis of 2,3-dihydroimidazo-and 1,2,3,4-tetrahydropyrimido[1,2-f]phenanthridines

Author/Inventor
Pan, Hsi-Lung; Fletcher, T. Lloyd

Patent Assignee/Corporate Source
Sch. Med., Univ. Washington, Seattle, WA, USA

Source
Journal of Heterocyclic Chemistry (**1972**), 9(4), 859-64 CODEN: JHTCAD; ISSN: 0022-152X

Document Type
Journal

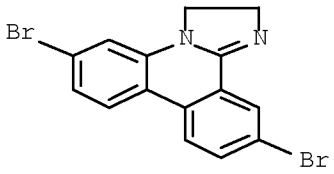
Language
English

Abstract
When 6-(2-hydroxyethyl)amino-,6-(3-hydroxypropyl)amino-, or 6-[2-(1-hydroxybutyl) aminophenanthridines, dissolved in concentrated H2SO4, were treated with nitrosylsulfuric acid at 0-25°, then diluted with H2O and basified with aqueous NaOH at 65-86°, 2,3-dihydroimidazo-, 1,2,3,4-tetrahydropyrimido-, or 2,3-dehydro-2- ethylimidazo [1,2-f phenanthridines (I, II, and III, R1 = H, Cl, NO2, R2 = H, Cl, Br, R3 = H, Cl, Br, NO2, NH2, R4 = H, Cl, Br) were obtained resp. in good yields. Structures were substantiated by ir spectroscopy. The 6-ω-hydroxyalkylamino-phenanthridines were prepared from the 6-chlorophenanthridines. A possible mechanism for the formation of these ring systems is postulated.

Hit Structure

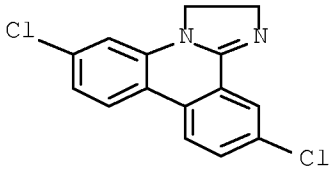
CAS Registry Number
37992-13-5 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dibromo-2,3-dihydro- (CA INDEX NAME)



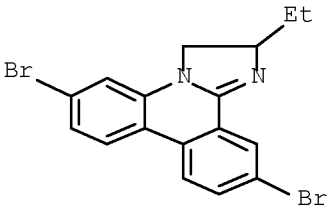
CAS Registry Number
37992-14-6 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dichloro-2,3-dihydro- (CA INDEX NAME)



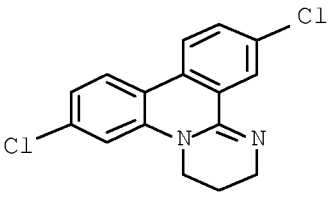
CAS Registry Number
37994-68-6 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dibromo-2-ethyl-2,3-dihydro- (CA INDEX NAME)



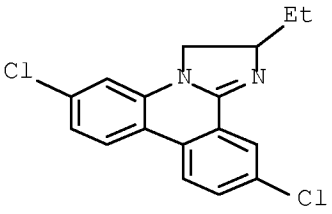
CAS Registry Number
37994-74-4 CAPLUS

Chemical or Trade Name
2H-Pyrimido[1,2-f]phenanthridine, 7,12-dichloro-3,4-dihydro- (CA INDEX NAME)



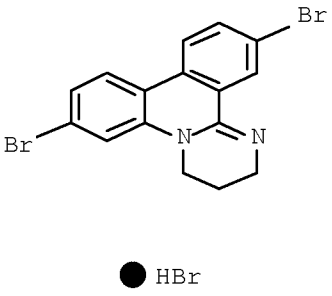
CAS Registry Number
38181-10-1 CAPLUS

Chemical or Trade Name
Imidazo[1,2-f]phenanthridine, 6,11-dichloro-2-ethyl-2,3-dihydro- (CA INDEX NAME)



CAS Registry Number
38181-11-2 CAPLUS

Chemical or Trade Name
2H-Pyrimido[1,2-f]phenanthridine, 7,12-dibromo-3,4-dihydro-, hydrobromide (1:1) (CA INDEX NAME)



. L12 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

Accession Number
1968:104896 CAPLUS Full-text

Document Number
68:104896

Title
Persulfate oxidation of carboxylic acids. III. Oxidation of cis-cinnamic and biphenyl-2-carboxylic acids

Author/Inventor
Brown, Patricia Margaret; Russell, James; Thomson, Ronald H.; Wylie, A. G.

Patent Assignee/Corporate Source
Univ. Aberdeen, Aberdeen, UK

Source
Journal of the Chemical Society [Section] C: Organic (**1968**), (7), 842-8 CODEN: JSOOAX; ISSN: 0022-4952

Document Type
Journal

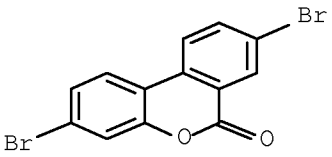
Language
English

Abstract
3,4-Benzocoumarins were obtained by oxidative cyclization of biphenyl-2-carboxylic acids. The parent benzocoumarin was also formed by oxidation of 2'-substituted acids with elimination of the substituent (OMe, NO2, and CO2H and in low yield Me and Cl) but 2'-benzoylbiphenyl-2-carboxylic acid gave 5-benzoyl-3,4-benzocoumarin and 2'-cyanobiphenyl-2-carboxylic acid yielded fluorenone and phenanthridine-1,10-carbolactone. Similar oxidns. of cis-cinnamic acids gave poor yields of coumarins, markedly increased by the presence of an o-methoxy group. The mechanisms of these reactions are discussed. 47 references.

Hit Structure

CAS Registry Number
18102-99-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



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                  D SCAN
L3                STRUCTURE UPLOADED
                  D L3
L4             2 SEA FILE=REGISTRY SSS SAM L3
                  D SCAN
L5            39 SEA FILE=REGISTRY SSS FUL L3

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L7             9 SEA FILE=CAPLUS SPE=ON  ABB=ON  PLU=ON  L5/PREP AND (PY<=2004
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L10           79 SEA FILE=REGISTRY SSS FUL L8

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L11           16 SEA FILE=CAPLUS SPE=ON  ABB=ON  PLU=ON  L10 AND (PY<=2004 OR
                  AY<=2004 OR PRY<=2004)
L12           12 SEA FILE=CAPLUS SPE=ON  ABB=ON  PLU=ON  L10/PREP AND (PY<=2004
                  OR AY<=2004 OR PRY<=2004)
                  D IBIB ABS HITSTR 1-
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                86.36     540.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                -9.84     -17.22

Connection closed by remote host

Connecting via Winsock to STN



Welcome to STN International!  Enter x:X

LOGINID:SSPTAAKB1794

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

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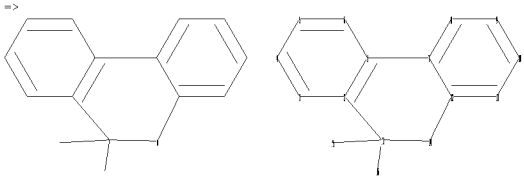

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chain nodes :
15 16
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14
chain bonds :
13-15 13-16
ring bonds :
1-2 1-6 1-7 2-3 2-13 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 12-14 13-14
exact bonds :
1-7 2-13 12-14 13-14 13-15 13-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 :


Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS



L1      STRUCTURE UPLOADED

=> s l1 sss full
FULL SEARCH INITIATED 13:53:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     1308 TO ITERATE

100.0% PROCESSED     1308 ITERATIONS                          395 ANSWERS
SEARCH TIME: 00.00.01

L2          395 SEA SSS FUL L1

=> s l2
L3        1160 L2

=> l3 and (electroluminescent or electroluminescence or (light emitting) or OLED)
         92475 ELECTROLUMINESCENT
             8 ELECTROLUMINESCENTS
         92478 ELECTROLUMINESCENT
                  (ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)
         26934 ELECTROLUMINESCENCE
            30 ELECTROLUMINESCENCES
         26939 ELECTROLUMINESCENCE
                  (ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)
             5 ELECTROLUMINESCENSE
         26940 ELECTROLUMINESCENCE
                  (ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)
       1352467 LIGHT
         12844 LIGHTS
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       1356774 LIGHT
                 (LIGHT OR LIGHTS)
        143446 EMITTING
           228 EMITTINGS
        143491 EMITTING
                 (EMITTING OR EMITTINGS)
         78543 LIGHT EMITTING
                 (LIGHT(W)EMITTING)
          7740 OLED
          3828 OLEDS
          9686 OLED
                 (OLED OR OLEDS)
L4            8 L3 AND (ELECTROLUMINESCENT OR ELECTROLUMINESCENCE OR (LIGHT EMIT
                TING) OR OLED)

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y
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L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:1533861 CAPLUS Full-text

Document Number
152:38288

Title
Manufacture of poly(arylenevinylenes) for **light-emitting** materials

Author/Inventor
Noguchi, Kiminobu

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 49pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009286890	A	20091210	JP 2008-140563	20080529

Abstract
Title poly(arylenevinylenes) having structural repeating units (I) CA1:CAr2Ar1 (Ar1 = arylene, divalent heterocyclic group, divalent aromatic amine residue; A1, A2 = H, alkyl, aryl, monovalent heterocyclic group, monovalent aromatic amine residue) and (II) Ar2Ar3 (Ar2, Ar3 = arylene, divalent heterocyclic group, divalent aromatic amine residue) are manufactured by (1) reaction of X1CA1:CA2X2 (A1, A2 = same as in I; X1, X2 = trialkylstannyl) with Y1Ar1Y2 (Ar1 = same as in I; Y1, Y2 = halo, alkylsulfonate, arylsulfonate, arylalkylsulfonate) in the presence of Pd catalysts in organic solvents and (2) reaction of the resulting reaction products with Y3Ar2Y4 (Ar2 = same as in II; Y3, Y4 = halo, alkylsulfonate, arylsulfonate, arylalkylsulfonate) and Y5Ar3Y6 (Ar3 = same as in II; Y5, Y6 = boric acid residue, boric acid ester residue) in the presence of Pd catalysts and bases in the organic solvents. The polymers are useful for **electroluminescent** materials, displays, transistors, and solar cells. Thus, I was treated with trans-1,2-bis(tributylstannyl)ethylene in the presence of dichlorobis(triphenylphosphine)palladium(II) in toluene and then with II and 5,5'-dibromo-2,2'-bithiophene in the presence of methyltrioctylammonium chloride to give a polymer with polystyrene-based weight-average mol. weight 1.7 + 104 and polystyrene-based number-average mol. weight 6.2 + 103.

Hit Structure

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CAS Registry Number
1198601-24-9  CAPLUS


Chemical or Trade Name
INDEX NAME NOT YET ASSIGNED

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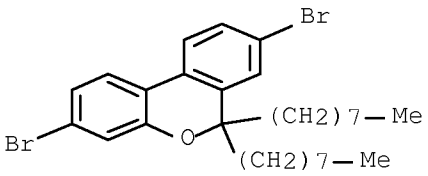


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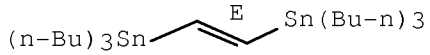


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CAS Registry Number
1198601-25-0  CAPLUS


Chemical or Trade Name
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polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran,
6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H-
dibenzo[b,d]pyran and 1,1'-(1E)-1,2-ethenediylbis[1,1,1-tributylstannane]
(CA INDEX NAME)

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CRN  688013-75-4
CMF  C41 H64 B2 O5
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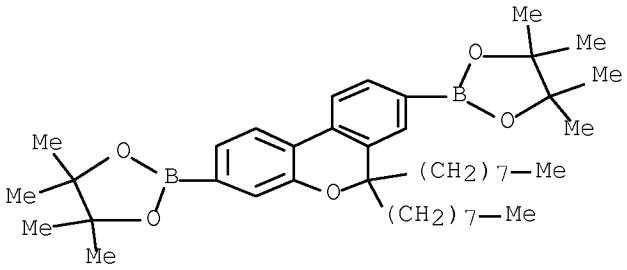

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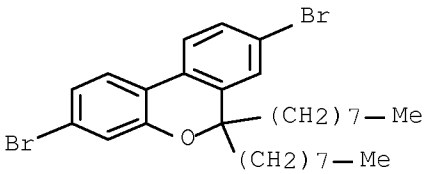

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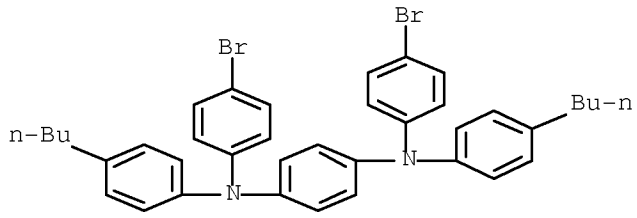

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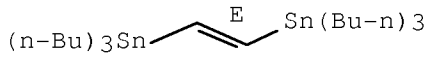
CRN 14275-61-7
CMF C26 H56 Sn2



L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:422839 CAPLUS Full-text

Document Number
150:427188

Title
Polyheteroarenes, their compositions and films, organic photoelectric converters and **electroluminescent** devices with their layers, and monomers for them

Author/Inventor
Uetani, Yasunori; Noguchi, Kiminobu

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 51pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

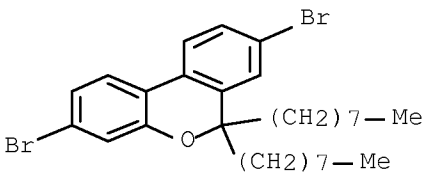
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009073808	A	20090409	JP 2008-115201	20080425

Abstract
The polyheteroarenes have structural repeating units represented by I (R = H, alkyl, alkoxy, alkylthio, etc.; R1 = H, alkyl, alkoxy, aryl, cyano; Ar1 = arylene, heterocyclylene; Z = O, S; m, n = 2-4), preferably II (R, R1, Ar1 = same as above). Organic photoelec. converters, e.g., solar cells, have layers containing I show high photoelec. conversion efficiency. The photoelec. converters may also use fullerenes as electron acceptors.

Hit Structure

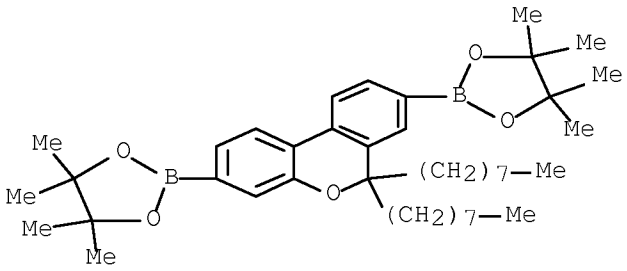
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
688013-75-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)



CAS Registry Number
1140830-09-6 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-, polymer with 5,5''-[(9,9-dioctyl-9H-fluorene-2,7-diyl)di-2,1-ethenediyl]bis[5'-bromo-2,2'-bithiophene] (CA INDEX NAME)

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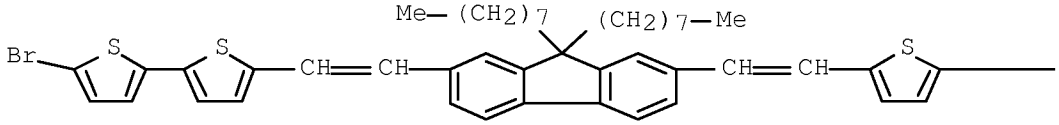
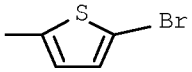
CRN 1140829-98-6
CMF C49 H52 Br2 S4

PAGE 1-A



PAGE 1-B



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CRN 688013-75-4
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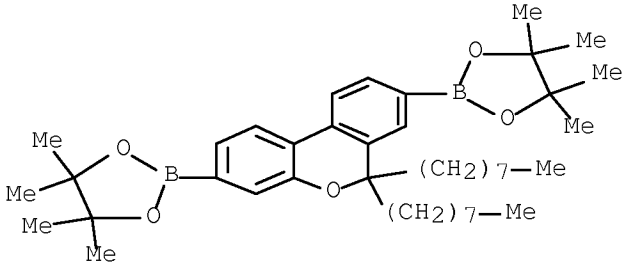

CAS Registry Number
1140830-36-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-, polymer with 5,5''-[[3,4-bis[4-[(3,7-dimethyloctyl)oxy]phenyl]-2,5-thiophenediyl]di-2,1-ethenediyl]bis[5'-bromo-2,2'-bithiophene] (CA INDEX NAME)

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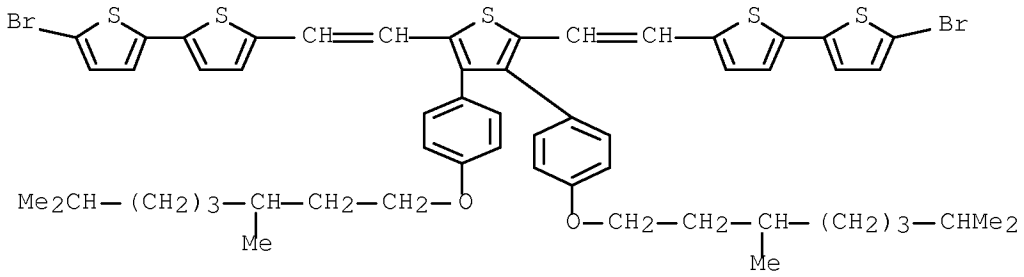

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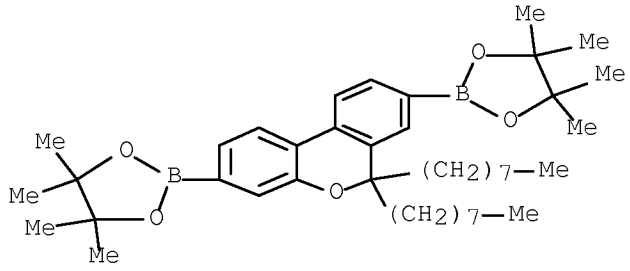

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2008:1397717 CAPLUS Full-text
Document Number
149:577440
Title
Polymeric **light emitting** materials for thin films, **light emitting** devices, plane light sources, display devices, organic transistors and solar cells
Author/Inventor
Noguchi, Takanobu; Suzuki, Tomoyuki
Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan
Source
PCT Int. Appl., 76pp. CODEN: PIXXD2
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008140057	A1	20081120	WO 2008-JP58664	20080509
JP 2008308671	A	20081225	JP 2008-123576	20080509
EP 2154174	A1	20100217	EP 2008-752547	20080509

Abstract
Title polymer compds. comprise a repeating unit (I) and/or a repeating unit (II), wherein Rf1, Rf2, Rg1, Rg2 = Ph or substituent and Rd1, Rd2, Re1, Re2 = H or substituent. Thus, 0.617 g 2,7-dibromo-9,9-dioctyl-9H-fluorene and 0.400 g 2,2'-[1-pentyl-1,2-ethenediyl]bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] were polymerized in the presence of dichlorobis(triphenylphosphine)palladium and Aliquat 336 to give a copolymer Mw 6.4 + 103, fluorescence at 462 nm, and relative fluorescence intensity 5.1.
Hit Structure

CAS Registry Number
1082773-87-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

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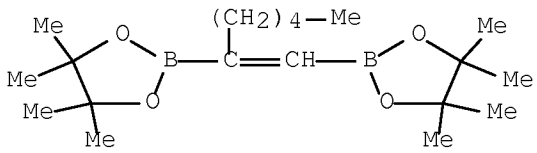

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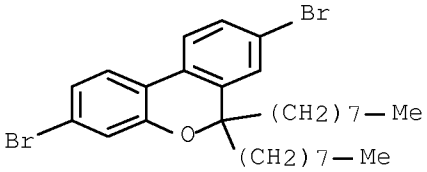

CAS Registry Number
1082773-89-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

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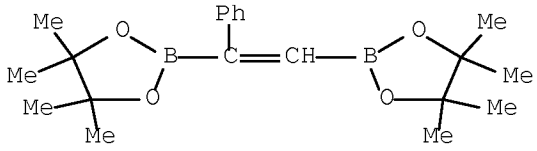

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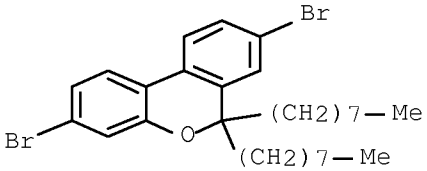

CAS Registry Number
1082773-93-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,7-dibromo-9,9-dioctyl-9H-fluorene and
2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

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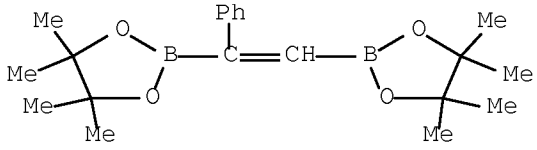

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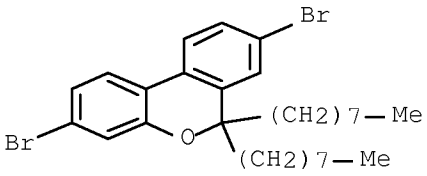

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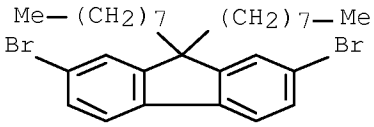

CAS Registry Number
1082773-95-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,7-dibromo-9,9-bis[4-(hexyloxy)phenyl]-9H-fluorene and
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
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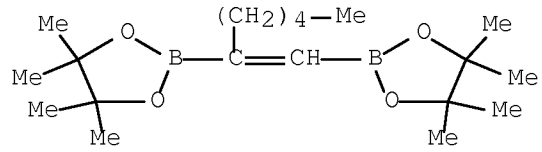

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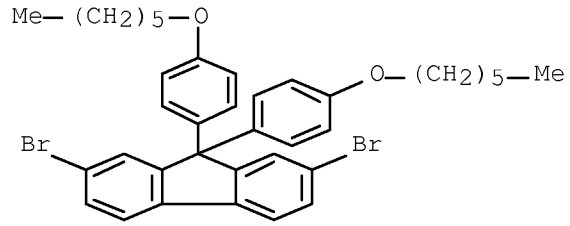

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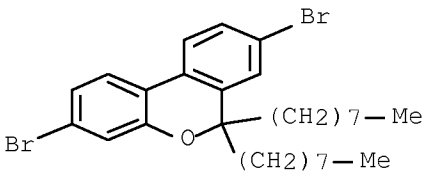

CAS Registry Number

1082773-97-4 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N1,N4-bis(4-bromophenyl)-N1,N4-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran, 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] and 2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane], block (CA INDEX NAME)

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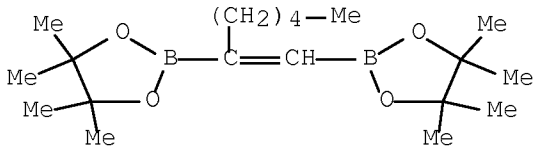

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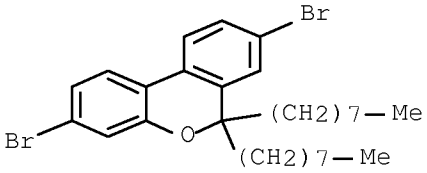

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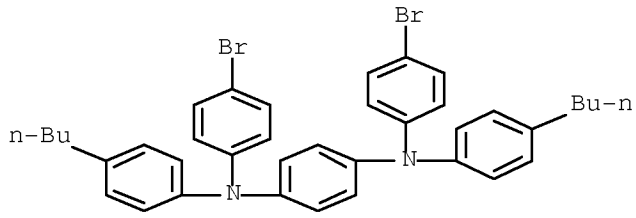

CM
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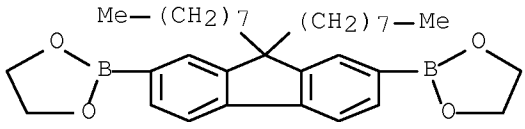
CRN 210347-49-2
CMF C33 H48 B2 O4



. L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2006:655771 CAPLUS Full-text

Document Number
145:124968

Title
Polymer compound and its use in heat-resistant polymer **light-emitting** device

Author/Inventor
Kobayashi, Shigeya; Kobayashi, Satoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 154 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2006070848	A1	20060706	WO 2005-JP24011	20051221
JP 2006182920	A	20060713	JP 2004-378517	20041228
GB 2437213	A	20071017	GB 2007-14555	20051221
DE 112005003270	T5	20080410	DE 2005-112005003270	20051221
US 20080145571	A1	20080619	US 2007-722225	20070620
KR 2007090041	A	20070904	KR 2007-717119	20070725
CN 101124259	A	20080213	CN 2005-80048421	20070817

Abstract

Disclosed is a polymer compound characterized by containing a structure represented by the following formula I (ring A and ring B independently represent an optionally substituted aromatic hydrocarbon ring, and ring C represents an alicyclic hydrocarbon which contains no fused aromatic compound while having at least one substituent; the alicyclic hydrocarbon may contain a heteroatom).

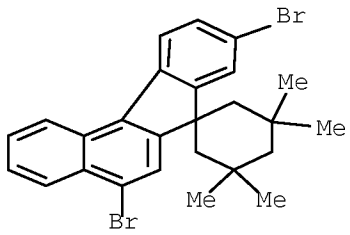
Hit Structure

CAS Registry Number
896732-77-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
5,9-dibromo-3',3',5',5'-tetramethylspiro[7H-benzo[c]fluorene-7,1'-
cyclohexane] (9CI) (CA INDEX NAME)

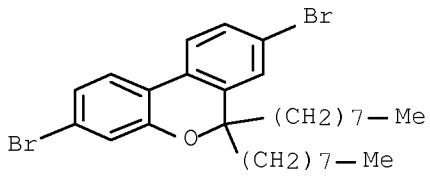
CM
1

CRN 896732-73-3
CMF C26 H26 Br2



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(6 CITINGS)

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2006:212535 CAPLUS Full-text

Document Number
144:301737

Title
Polymer luminescent material composition and polymer **light-emitting** devices

Author/Inventor
Uetani, Yasunori; Shirasawa, Nobuhiko; Nakanishi, Hirotoshi

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 82 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

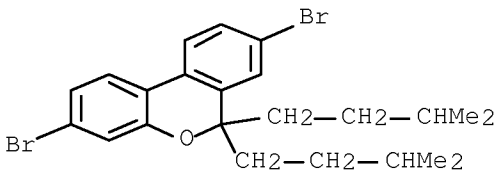
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006025290	A1	20060309	WO 2005-JP15606	20050823
GB 2432838	A	20070606	GB 2007-5585	20050823
GB 2432838	B	20090218		
DE 112005002083	T5	20070719	DE 2005-112005002083	20050823
CN 101048465	A	20071003	CN 2005-80036762	20050823
JP 2006097008	A	20060413	JP 2005-250978	20050831
JP 2006169502	A	20060629	JP 2005-250979	20050831
KR 2007061840	A	20070614	KR 2007-707064	20070328
US 20090039765	A1	20090212	US 2007-574029	20070821

Abstract
A polymer luminescent material composition is characterized by comprising a polymer luminescent material and a compound selected from among compds. of the following general formulas I to IV: wherein X is an atom or atomic group forming a 5- or 6-membered ring together with the four carbon atoms constituting the 2 benzene rings; and Q and T are each independently H, halo, alkyl, alkyloxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylalkylthio, alkenyl, alkynyl, arylalkenyl, arylalkynyl, substituted silyloxy, substituted silylthio, substituted silylamino, substituted amino, amido, an acid imide group, acyloxy, a monovalent heterocyclic group, heteroaryloxy, heteroarylthio, cyano, or nitro.

Hit Structure

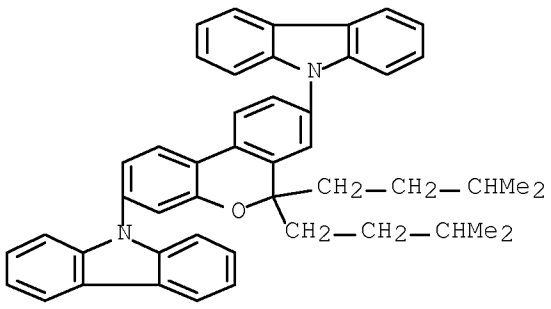
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



CAS Registry Number
878557-66-5 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9,9'-[6,6-bis(3-methylbutyl)-6H-dibenzo[b,d]pyran-3,8-diyl]bis- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2005:324209 CAPLUS Full-text

Document Number
142:374970

Title

Polymer **light-emitting** material and polymer **light-emitting** device

Author/Inventor

Nakatani, Tomoya; Sekine, Chizu; Mikami, Satoshi; Kobayashi, Satoshi

Patent Assignee/Corporate Source

Sumitomo Chemical Company, Limited, Japan

Source

PCT Int. Appl., 111 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033174	A1	20050414	WO 2004-JP14569	20040928
DE 112004001856	T5	20060727	DE 2004-112004001856	20040928
GB 2424895	A	20061011	GB 2006-8519	20040928
GB 2424895	B	20080709		
CN 1863838	A	20061115	CN 2004-80028951	20040928
JP 2005126705	A	20050519	JP 2004-286813	20040930
US 20070051922	A1	20070308	US 2006-573839	20060329
KR 2006115861	A	20061110	KR 2006-708210	20060428

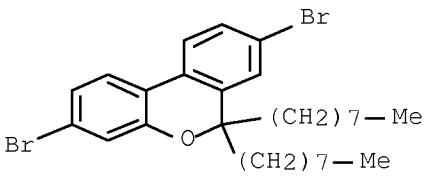
Abstract

Disclosed is a polymer **light-emitting** material containing a polymer compound with number average mol. weight of 103-108 composed of repeating units I or II and exhibiting light emission from the triplet excited state, wherein Ar1, Ar2, Ar3, Ar4 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), SO2, CR1R2, SiR3R4, NR5, BR6, PR7, or P(:O)R8 (X1 and Ar2 are bonded with adjacent carbon atoms in the aromatic ring of Ar1 and X2 and Ar1 are bonded with adjacent carbon atoms in the aromatic ring of Ar2); X3, X4 = independently N, B, P, CR9, or SiR10 (X3 and Ar4 are bonded with adjacent atoms in the aromatic ring of Ar3 and X4 and Ar3 are bonded with adjacent atoms in the aromatic ring of Ar4); and R1-10 = H, halogen, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylakylthio, acyl, acyloxy, amide, acidic imide, imide residue, amino, substituted amino, silyl, silyloxy, silylthio, or silylamino, monovalent heterocyclic, heteroaryloxy, heteroarylthio, arylalkenyl, arylethynyl, carboxy, alkoxycarbonyl, aryloxycarbonyl, arylalkyloxycarbonyl, heteroaryloxycarbonyl, or cyano group (R1 and R2, R3 and R4 may be bonded each other to form a ring). Thus, 6.65 g 2,7-dibromo-9-fluorenone was treated with sodium perborate monohydrate, reacted with 2,2'-dibromo-5,5'-bis(octyloxy)-1,1'-biphenyl, treated with p-toluenesulfonic acid monohydrate to give 3,8-dibromo-3',6'-bis(octyloxy)-spiro[6H-dibenzo[b,d]pyran-6,9'- [9H]fluorene], 0.37 g of which was polymerized with 0.28 g 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (preparation given) to give a copolymer with number average mol. weight 2.8 + 104 and weight average mol. weight 1.4 + 105, which was mixed with 5% (2,4-pentanedionato-κO,κO')bis[2-(2-pyridinyl- κN)benzo[b]thien-3-yl-κC]-iridium, applied on Baytron P/ITO/glass substrate, dried at 80° for 1 h, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give an **electroluminescent** element giving emission at 620 nm.

Hit Structure

CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)

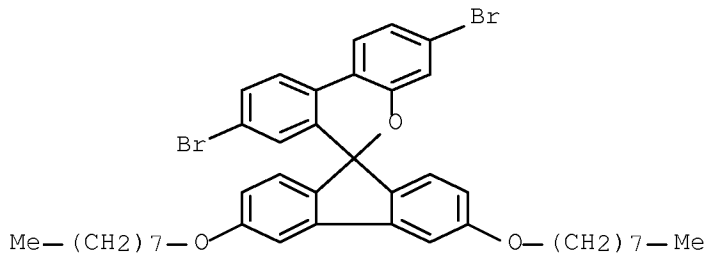


CAS Registry Number
849693-56-7 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

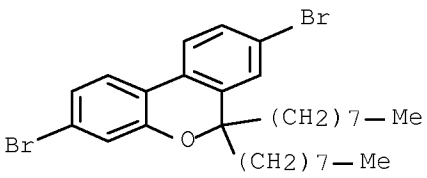
CM
1

CRN 688013-72-1
CMF C41 H46 Br2 O3



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2004:1128942 CAPLUS Full-text

Document Number
142:82001

Title
Color conversion film for organic **electroluminescent** device

Author/Inventor
Iimura, Kiyotoshi; Doi, Shuji

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 24 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004362910	A	20041224	JP 2003-159000	20030604

Abstract
The invention relates to a color conversion film, suited for use in an organic **electroluminescent** device, comprising a fluorescent and/or phosphorescent conjugated polymer.

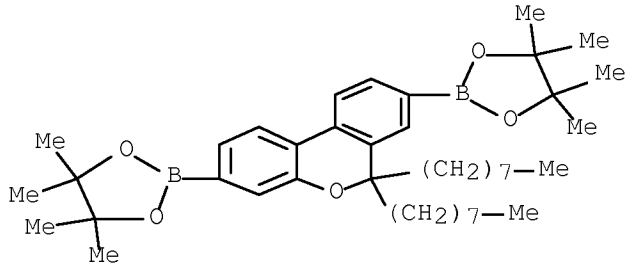
Hit Structure

CAS Registry Number
811819-84-8 CAPLUS

Chemical or Trade Name
2,1,3-Benzothiadiazole, 4,7-bis(5-bromo-4-hexyl-2-thienyl)-, polymer with 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

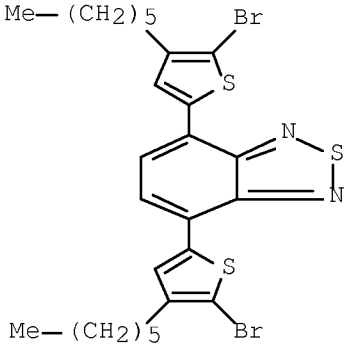
CM
1

CRN 688013-75-4
CMF C41 H64 B2 O5



CM
2

CRN 444579-39-9
CMF C26 H30 Br2 N2 S3



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

. L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2004:392502 CAPLUS Full-text

Document Number
140:415047

Title
High-molecular compounds and polymer **light- emitting** devices made by using the same

Author/Inventor
Doi, Shuji; Kobayashi, Satoshi; Noguchi, Takanobu

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 131 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

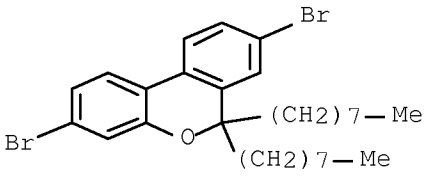
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039859	A1	20040513	WO 2003-JP12697	20031003
JP 2004168999	A	20040617	JP 2003-343244	20031001
AU 2003268752	A1	20040525	AU 2003-268752	20031003
EP 1571170	A1	20050907	EP 2003-748697	20031003
US 20080138651	A1	20080612	US 2005-532937	20050428
JP 2009215557	A	20090924	JP 2009-67794	20090319

Abstract
The invention relates to a high-mol. compds. comprising repeating units represented by the general formula I or II and having number-average mol. wts. of 103-108 in terms of polystyrene: (1) [wherein Ar1 and Ar2 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X1 and X2 are each independently O, S, C(= O), S(= O), SO2, C(R1)(R2), Si(R3)(R4), N(R5), B(R6), P(R7), or P(= O)(R8), with the provisos that X1 and X2 must not be the same and that X1 and Ar2 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar1, and X2 and Ar1 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar2] (2) [wherein Ar3 and Ar4 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X3 and X4 are each independently N, B, P, C(R9), or Si(R10), with the provisos that X3 and X4 must not be the same and that X3 and Ar4 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar3, and X4 and Ar3 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar4].

Hit Structure

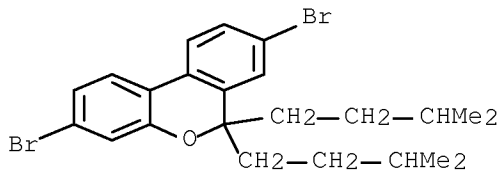
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



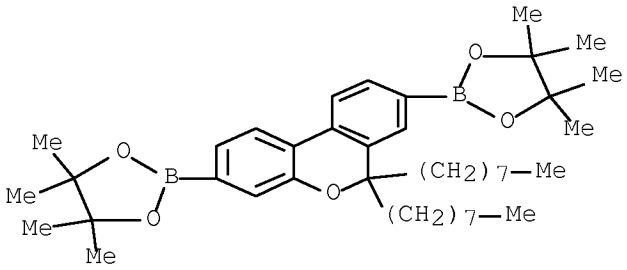
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



CAS Registry Number
688013-75-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)

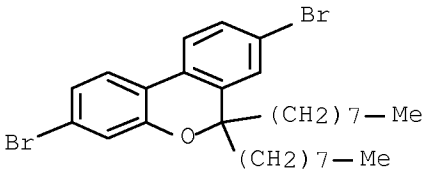


CAS Registry Number
688013-78-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
688013-79-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 1,4-dibromo-2,5-bis(decyloxy)benzene (9CI) (CA INDEX NAME)

CM
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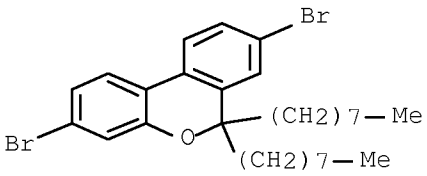
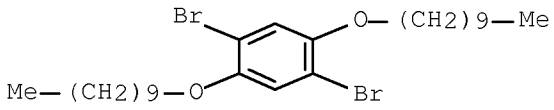
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 152269-98-2
CMF C26 H44 Br2 O2

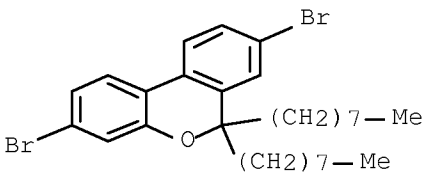


CAS Registry Number
688013-80-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene (9CI) (CA INDEX NAME)

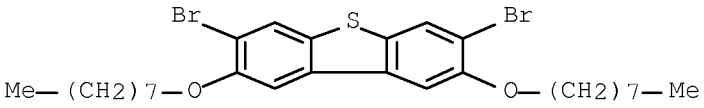
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 599212-67-6
CMF C28 H38 Br2 O2 S

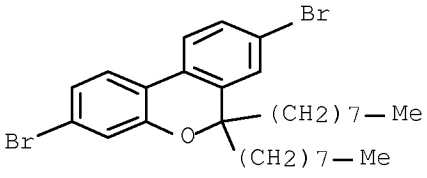


CAS Registry Number
688013-81-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzofuran (9CI) (CA INDEX NAME)

CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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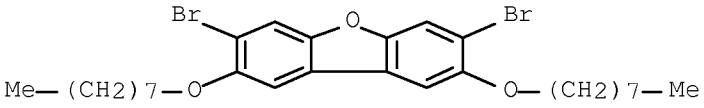
CRN 599212-92-7
CMF C28 H38 Br2 O3

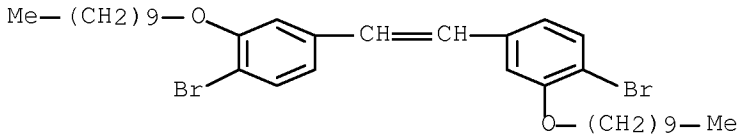


CAS Registry Number
688013-83-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,1'-(1,2-ethenediyl)bis[4-bromo-3-(decyloxy)benzene] (9CI) (CA INDEX
NAME)

CM
1

CRN 688013-82-3
CMF C34 H50 Br2 O2



CM
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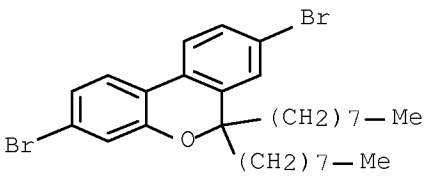
CRN 688013-66-3
CMF C29 H40 Br2 O

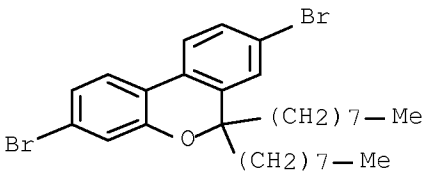


CAS Registry Number
688013-84-5 CAPLUS

Chemical or Trade Name
Benzenamine, N,N-bis(4-bromophenyl)-4-(1-methylpropyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

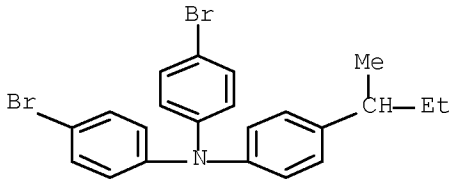
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 287976-94-7
CMF C22 H21 Br2 N

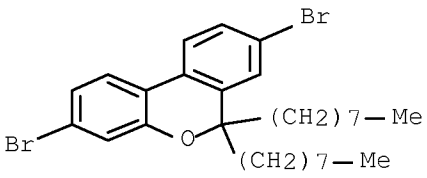


CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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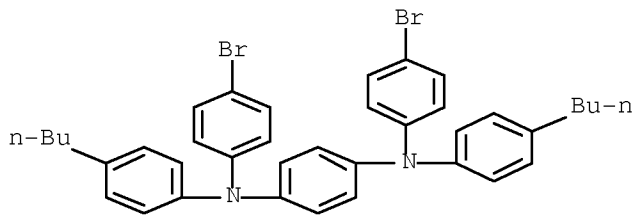
CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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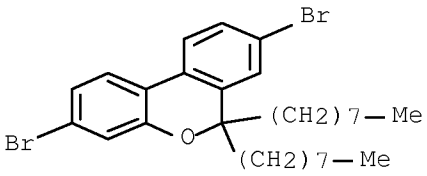
CRN 688013-66-3
CMF C29 H40 Br2 O



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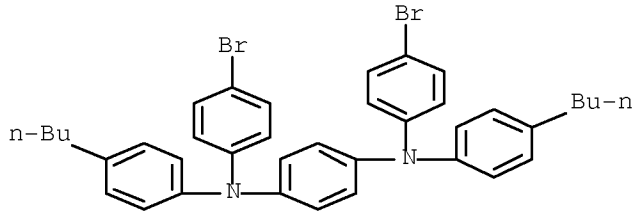
CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-86-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene and 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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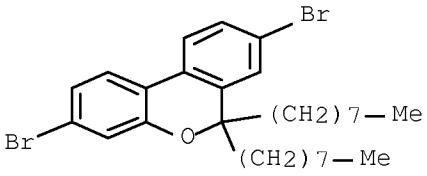
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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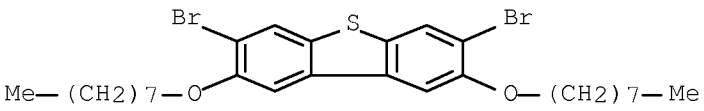
CRN 599212-67-6
CMF C28 H38 Br2 O2 S



CM
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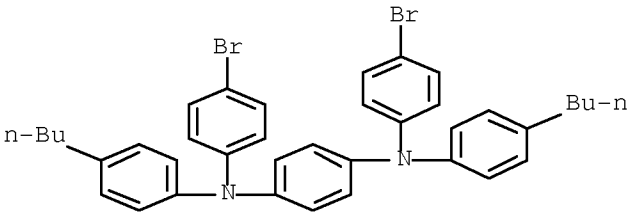
CRN 372200-89-0
CMF C38 H38 Br2 N2



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

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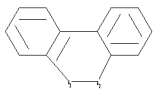

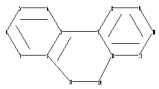

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ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14
ring bonds :
1-2 1-6 1-7 2-3 2-13 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 12-14 13-14
exact/norm bonds :
1-7 2-13 12-14 13-14
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 :


G1:C,O,S,N,P,Si,B

G2:O,S,N,P,B

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom



L5      STRUCTURE UPLOADED

=> s l5 sss full
FULL SEARCH INITIATED 13:57:59 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  2384835 TO ITERATE

 83.9% PROCESSED  2000000 ITERATIONS                        15305 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.07

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:      2384835 TO  2384835
PROJECTED ANSWERS:           17844 TO    18654

L6        15305 SEA SSS FUL L5

=> s l6
L7        2681 L6

=> l7 and (electroluminescent or electroluminescence or (light emitting) or OLED)
         92475 ELECTROLUMINESCENT
             8 ELECTROLUMINESCENTS
         92478 ELECTROLUMINESCENT
                 (ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)
         26934 ELECTROLUMINESCENCE
            30 ELECTROLUMINESCENCES
         26939 ELECTROLUMINESCENCE
                 (ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)
             5 ELECTROLUMINESCENSE
         26940 ELECTROLUMINESCENCE
                 (ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)
       1352467 LIGHT
         12844 LIGHTS
       1356774 LIGHT
                 (LIGHT OR LIGHTS)
        143446 EMITTING
           228 EMITTINGS
        143491 EMITTING
                 (EMITTING OR EMITTINGS)
         78543 LIGHT EMITTING
                 (LIGHT(W)EMITTING)
          7740 OLED
          3828 OLEDS
          9686 OLED
                 (OLED OR OLEDS)
L8          49 L7 AND (ELECTROLUMINESCENT OR ELECTROLUMINESCENCE OR (LIGHT EMIT
               TING) OR OLED)

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 49 ANSWERS - CONTINUE? Y/(N):y
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L8 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2010:114706 CAPLUS Full-text

Document Number
152:226240

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Liao, Liang-Sheng; Klubek, Kevin P.; Rajeswaran, Manju; Andrievsky, Natasha

Patent Assignee/Corporate Source
Eastman Kodak Company, USA

Source
U.S. Pat. Appl. Publ., 38pp., Cont.-in-part of U.S. Ser. No.796,953. Abandoned CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 20100019671	A1	20100128	US 2009-573175	20091005
US 20070092759	A1	20070426	US 2006-501336	20060809
US 20070207347	A1	20070906	US 2007-796953	20070430

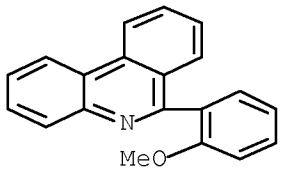
Abstract

The invention relates to an **OLED** device including a cathode, a **light-emitting** layer and an anode, and having located between the cathode and the **light-emitting** layer, a further layer containing an alkali metal or alkaline earth metal salt of a 2-(2-hydroxyphenyl)phenanthroline derivative Such devices exhibit reduced drive voltage while maintaining good luminance.

Hit Structure

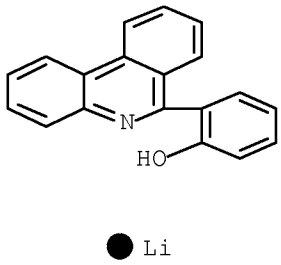
CAS Registry Number
452070-78-9 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-(2-methoxyphenyl)- (CA INDEX NAME)



CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



L8 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2010:51252 CAPLUS Full-text

Document Number
152:144705

Title
Preparation of anthracene derivatives for organic electronic device

Author/Inventor
Kim, Kong-Kyeom; Son, Se-Hwan; Lee, Dae-Woong; Jeon, Sang-Young; Jang, Hye-Young

Patent Assignee/Corporate Source
LG Chem, Ltd., S. Korea

Source
PCT Int. Appl., 59pp. CODEN: PIXXD2

Document Type
Patent

Language
Korean

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2010005266	A2	20100114	WO 2009-KR3799	20090710
KR 2010006979	A	20100122	KR 2008-67362	20080711

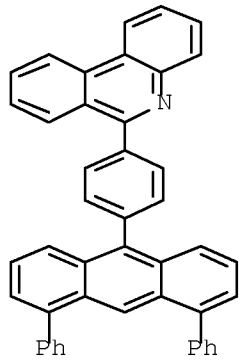
Abstract

Title compds. I [n = 1-3; L1-L3 = direct bond or (un)substituted arylene; Ar1, Ar2 = (un)substituted (non)condensed aryl, (un)substituted (non)condensed heteroaryl, (un)substituted fluorenyl, etc.; Ar = (un)substituted (non) condensed aryl, (un)substituted (non)condensed heteroaryl, (un)substituted fluorenyl, etc.; a, b = 0-3; X1, X2 = H, (un)substituted alkyl, (un)substituted alkenyl, etc.] were prepared For example, reduction of 1,8-dichloroanthraquinone, bromination, Pd(PPh3)4-catalyzed reaction with 2-naphthaleneboronic acid, and coupling reaction with diphenylamine afforded compound II. **Electroluminescent** device comprising II emitted green light with 25.1 cd/A.

Hit Structure

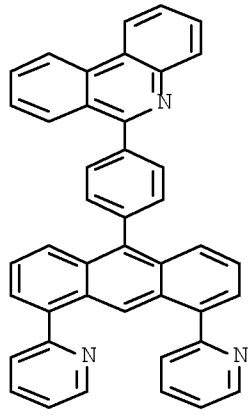
CAS Registry Number
1204236-43-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[4-(4,5-diphenyl-9-anthracenyl)phenyl]- (CA INDEX NAME)



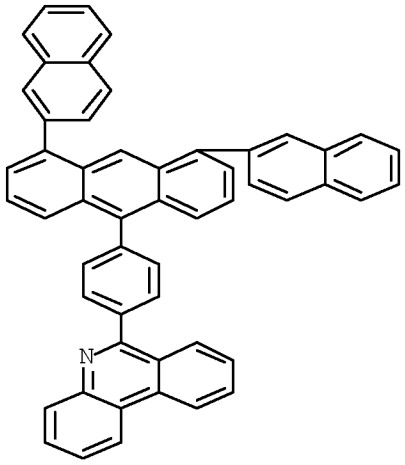
CAS Registry Number
1204236-55-4 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[4-(4,5-di-2-pyridinyl-9-anthracenyl)phenyl]- (CA INDEX NAME)



CAS Registry Number
1204236-75-8 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[4-(4,5-di-2-naphthalenyl-9-anthracenyl)phenyl]- (CA INDEX NAME)



L8 ANSWER 3 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:1533861 CAPLUS Full-text

Document Number
152:38288

Title
Manufacture of poly(arylenevinylenes) for **light-emitting** materials

Author/Inventor
Noguchi, Kiminobu

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 49pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009286890	A	20091210	JP 2008-140563	20080529

Abstract

Title poly(arylenevinylenes) having structural repeating units (I) CA1:CAr2Ar1 (Ar1 = arylene, divalent heterocyclic group, divalent aromatic amine residue; A1, A2 = H, alkyl, aryl, monovalent heterocyclic group, monovalent aromatic amine residue) and (II) Ar2Ar3 (Ar2, Ar3 = arylene, divalent heterocyclic group, divalent aromatic amine residue) are manufactured by (1) reaction of X1CA1:CA2X2 (A1, A2 = same as in I; X1, X2 = trialkylstannyl) with Y1Ar1Y2 (Ar1 = same as in I; Y1, Y2 = halo, alkylsulfonate, arylsulfonate, arylalkylsulfonate) in the presence of Pd catalysts in organic solvents and (2) reaction of the resulting reaction products with Y3Ar2Y4 (Ar2 = same as in II; Y3, Y4 = halo, alkylsulfonate, arylsulfonate, arylalkylsulfonate) and Y5Ar3Y6 (Ar3 = same as in II; Y5, Y6 = boric acid residue, boric acid ester residue) in the presence of Pd catalysts and bases in the organic solvents. The polymers are useful for **electroluminescent** materials, displays, transistors, and solar cells. Thus, I was treated with trans-1,2-bis(tributylstannyl)ethylene in the presence of dichlorobis(triphenylphosphine)palladium(II) in toluene and then with II and 5,5'-dibromo-2,2'-bithiophene in the presence of methyltrioctylammonium chloride to give a polymer with polystyrene-based weight-average mol. weight 1.7 + 104 and polystyrene-based number-average mol. weight 6.2 + 103.

Hit Structure

CAS Registry Number
1198601-24-9 CAPLUS

Chemical or Trade Name
INDEX NAME NOT YET ASSIGNED

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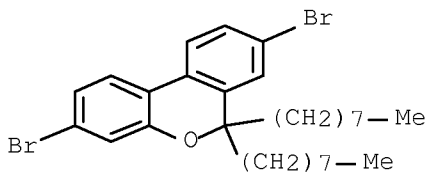
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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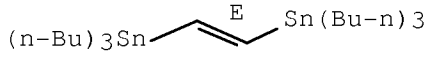
CRN 14275-61-7
CMF C26 H56 Sn2



CAS Registry Number
1198601-25-0 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N1,N4-bis(4-bromophenyl)-N1,N4-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H-dibenzo[b,d]pyran and 1,1'-(1E)-1,2-ethenediylbis[1,1,1-tributylstannane] (CA INDEX NAME)

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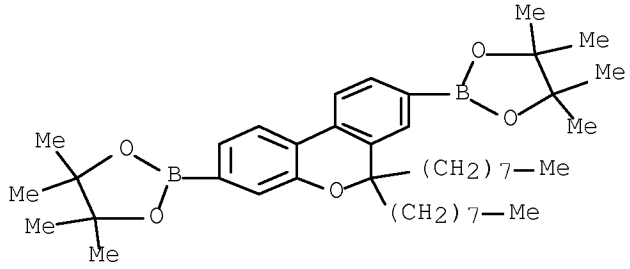
CRN 688013-75-4
CMF C41 H64 B2 O5



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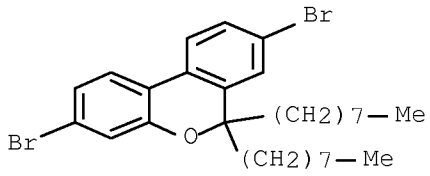
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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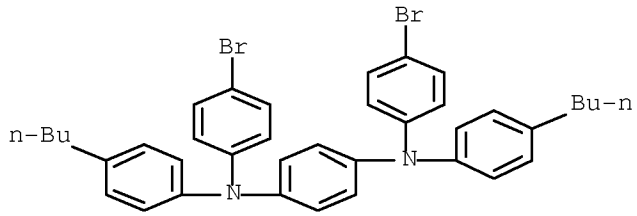
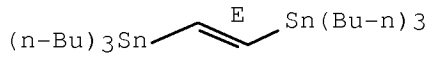
CRN 372200-89-0
CMF C38 H38 Br2 N2



CM
4

CRN 14275-61-7
CMF C26 H56 Sn2



L8 ANSWER 4 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:1091536 CAPLUS Full-text

Document Number
151:539713

Title
Synthesis and electrooptical properties of carbazole derivatives with high band gap energy

Author/Inventor
Kim, Ki-Soo; Jeong, Seonju; Kim, Cham; Kwon, Younghwan; Choi, Byeong-Dae; Han, Yoon Soo

Patent Assignee/Corporate Source
Division of Nano-Bio Technology, Daegu Gyeongbuk Institute of Science and Technology (DGIST), Taegu, 704-230, S. Korea

Source
Thin Solid Films (2009), 518(1), 284-289 CODEN: THSFAP; ISSN: 0040-6090

Document Type
Journal

Language
English

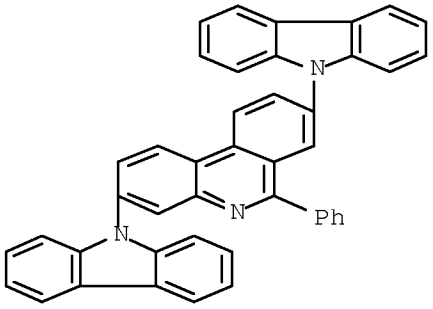
Abstract
Two materials containing carbazole moieties and exhibiting a high band gap energy, 3,8-di(9H-carbazol-9-yl)-6-phenylphenanthridine (DCzP) and 3,6-di(naphthalene-2-yl)-9-phenyl-9H-carbazole (DNaC), were synthesized via C-N coupling and Suzuki coupling reactions, resp. The compound DCzP exhibited blue emission with the CIE coordinates of x = 0.165 and y = 0.136 from the **OLED** device, ITO(indium-tin oxide)/NPB(N,N'-bis(naphthalene-1-yl)-N,N'- bis(phenyl)benzidine)/DCzP/LiF/Al. The doped device, ITO/2-TNATA(4,4',4''-Tris(2-naphtylphenyl-phenylamino) tri-Ph amine)/NPB/DCzP + Ir(ppy)3/BCP(2,9-Dimethyl-4,7-diphenyl-1,10- phenanthroline)/Alq3(tris(8-hydroxyquinoline)aluminum)/LiF/Al, showed bright yellowish-green emission with a maximum luminance of 23,000 cd/m2 when the synthesized DCzP was applied as a host material for the phosphorescent green dopant. From

the double layer device, ITO/DNaC/Alq3/LiF/Al, in which DNaC was used as the hole transporting material, the yellowish-green color arising from the Alq3 was also observed

Hit Structure

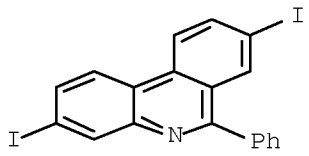
CAS Registry Number
1193737-99-3 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-di-9H-carbazol-9-yl-6-phenyl- (CA INDEX NAME)



CAS Registry Number
309756-55-6 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-diiodo-6-phenyl- (CA INDEX NAME)



L8 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:703111 CAPLUS Full-text

Document Number
151:56977

Title
Preparation of vinylboron chelates as **light- emitting** materials, electron-transport materials, electron-injection materials or organic semiconductors, processes for their preparation and their use in functional electronic devices

Author/Inventor
Murakami, Masahiro; Ishida, Naoki; Narumi, Mizuna; Arimoto, Yoichi; Hasegawa, Munehiro; Arai, Tomoya; Goya, Tsuyoshi

Patent Assignee/Corporate Source
Kyoto University, Japan; Nippon Shokubai Co., Ltd.

Source
PCT Int. Appl., 295pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

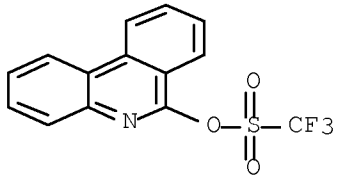
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009072582	A1	20090611	WO 2008-JP72096	20081204
JP 2009155325	A	20090716	JP 2008-307846	20081202

Abstract
Vinylboron chelates [I; R1, R2, R3 = (un)substituted aryl, any two of R1-R3 can form a ring; R4 = H, a substituent; m = 0-2; Q = linker; X = N, O, S, P, etc., dotted circle containing QX - part of a common ring; Q-X with dotted line = single or double bond; Ra = H or mono-, di-, tri- or quadrivalent organic group; n = 1-4; when n = 2-4, then R1-R4, m, Q, X are the same], useful as **light-emitting** materials, electron transport materials, electron injection materials, pos. hole-blocking materials or organic semiconductor materials, are claimed. I are prepared, e.g., by reaction of ammonium alkynyltriarylborates (II; same R1-R3, Ra, n; R5-R8 = organic group) with halide compds. (III; same X, Q, R4, m; Y = F, Cl, Br, iodo) in the presence of a catalyst containing at least one metal selected from among Pd, Pt and Ni. Thus, two examples of I (shown as IV and V; preparation given for both) required far lower voltages than Alq3 to produce high light intensity as electron-transport layers in an **electroluminescent** device (**OLED**); the threshold voltages for IV and V were 7 V and 8 V, resp., whereas for Alq3 it was 13 V.

Hit Structure

CAS Registry Number
1160604-89-6 CAPLUS

Chemical or Trade Name
Methanesulfonic acid, 1,1,1-trifluoro-, 6-phenanthridinyl ester (CA INDEX NAME)



L8 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:490637 CAPLUS Full-text

Document Number
150:448128

Title
Transition metal cyclometalated complexes with chelating bidentate N,S- and N,O-heterocyclic carbene-heterocycle ligands as **light- emitting** materials for organic **light -emitting** devices (**OLEDs**)

Author/Inventor
Molt, Oliver; Lennartz, Christian; Fuchs, Evelyn; Kahle, Klaus; Langer, Nicolle; Schildknecht, Christian; Rudolph, Jens; Wagenblast, Gerhard; Watanabe, Soichi

Patent Assignee/Corporate Source
Basf Se, Germany

Source
PCT Int. Appl., 60pp. CODEN: PIXXD2

Document Type
Patent

Language
German

Patent Information

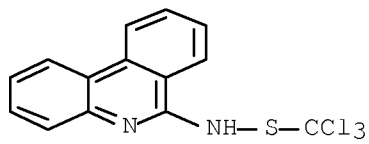
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009050290	A1	20090423	WO 2008-EP64074	20081017

Abstract
Transition metal complexes I [1, (NHC)MLmZn, M = Group IB, IIB metal, transition metal, lanthanide, preferably M = Ir, Os, Pt; L = mono- or bidentate neutral ligand; Z = mono- or dianionic ligand; X = C, N; R1 = F, CN, C1-20 alkoxy, alkylthio, C6-30 aryloxy, arylthio, C6-30 (hetero)aryl or absent; Y = S, O, organylphosphinidene, diorganylsilylene, preferably Y = S, O; A, D, E, G, J, K, Q, T = N, CH, C-organyl, two adjacent ring atoms may form a 3-6-membered cycle; x > 1; m, n = 0, ≥1], useful as stable and efficient **light-emitting** materials for manufacturing of organic **light-emitting** devices, were prepared by metalation of the azolium carbene precursors [NHC-H]+W- (2-W, same A, D, E, G, J, K, Q, T, R1; Y = phosphinidene, silylene; W = halide, pseudohalide, BF4-, BPh2-, PF6-, AsF6-, SbF6-), or by desulfurization of the corresponding oxadiazolophenanthridine- or thiadiazolophenanthridine-3-thiones by H2O2 followed by argentation and transmetalation, preferably with [Ir2(μ-Cl)2(η4-1,5-cod)2]. In an example, the complex (NHC)3Ir (1a,b A = D = E = G = J = K = Q = T = CH, R1 absent, X = N; Y = S, O) were prepared (synthetic details not disclosed) starting from phenanthridine-6-amine and 6-phenanthridinone, resp., via 1,2,4-thiadiazolo[4,3-f]phenanthridine-3-thione and oxadiazolo[4,3-f]phenanthridinium tetrafluoroborate intermediates, resp.

Hit Structure

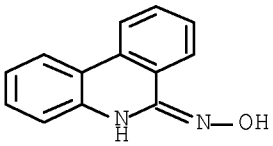
CAS Registry Number
1145831-62-4 CAPLUS

Chemical or Trade Name
Methanesulfenamide, 1,1,1-trichloro-N-6-phenanthridinyl- (CA INDEX NAME)



CAS Registry Number
1145831-65-7 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-hydroxy- (CA INDEX NAME)



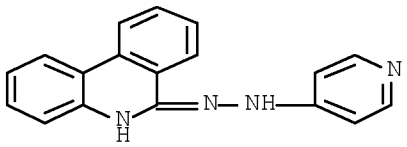
L8 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2009:487913 CAPLUS Full-text
Document Number
150:472908
Title
Transition metal cyclometalated complexes with chelating bidentate N-heterocyclic carbene-heterocycle ligands as **light-emitting** materials for organic **light-emitting** devices (**OLEDs**)
Author/Inventor
Molt, Oliver; Lennartz, Christian; Fuchs, Evelyn; Kahle, Klaus; Langer, Nicolle; Schildknecht, Christian; Rudolph, Jens; Wagenblast, Gerhard; Watanabe, Soichi
Patent Assignee/Corporate Source
Basf Se, Germany
Source
PCT Int. Appl., 70pp. CODEN: PIXXD2
Document Type
Patent
Language
German
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009050281	A1	20090423	WO 2008-EP64064	20081017

Abstract
Transition metal complexes I [1, (NHC)MLmZn, M = Group IB, IIB metal, transition metal, lanthanide, preferably M = Ir, Os, Pt; L = mono- or bidentate neutral ligand; Z = mono- or dianionic ligand; X = C, N, preferably X = N, R1 absent; when X = C, R1 = F, CN, C1-20 alkoxy, alkylthio, C6-30 aryloxy, arylthio, C6-30 (hetero)aryl; R2 = organyl, A, D, E, G, J, K, Q, T = N, CH, C-organyl, two adjacent ring atoms may form a 3-6-membered cycle; x > 1; m, n = 0, ≥1], useful as stable and efficient **light-emitting** materials for manufacturing of organic **light-emitting** devices, were prepared by metalation of the azolium carbene precursors [NHC-H]+Y- (2·Y, same A, D, E, G, J, K, Q, T, R1, R2; Y = halide, pseudohalide, BF4-, BPh2-, PF6-, AsF6-, SbF6-), preferably in one-pot process with a metal complex and ligands L and HZ, preferably by reaction of [NHC-H]+Y- with [Ir2(μ-Cl)2(η4-1,5-cod)2]. In an example, 11.0 mmol of the ligand iodide precursor, 1-methyl-1,2,4-triazolo[4,3-f]phenanthridinium iodide (2a·I; X = N, R1 absent, R2 = Me, A = D = E = G = J = K = Q = T = CH) was reacted with 5.5 mmol of Ag2O in 200 mL of MeOH for 16 h at 20° under argon, giving 94% of the silver carbene (NHC)AgI (3a), which was reacted with [Ir2(μ-Cl)2(η4-1,5-cod)2] to give the mer-(NHC)3Ir (1a, X = N, R1 absent, R2 = Me, A = D = E = J = K = Q = T = CH, G = C; x = 3, m = n = 0) with 75% yield. In another example, the complex 1a exhibited blue emission at 448, 481 nm upon excitation at 325 nm by HeCd laser; the **light-emitting** layer made with 1a as an active component exhibited **electroluminescence** at 452, 479 nm, efficiency of 13.4 cd/A, quantum yield of 7.2% and maximum brightness of 1300 cd/m2.
Hit Structure

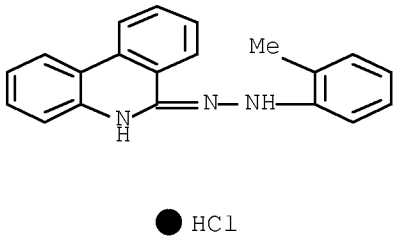
CAS Registry Number
1145788-07-3 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[2-(4-pyridinyl)hydrazinyl]- (CA INDEX NAME)



CAS Registry Number
1145788-00-6 CAPLUS

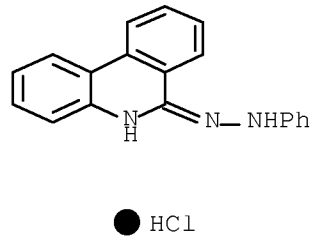
Chemical or Trade Name
Phenanthridine, 6-[2-(2-methylphenyl)hydrazinyl]-, hydrochloride (1:1)
(CA INDEX NAME)



CAS Registry Number
1145788-03-9 CAPLUS

Chemical or Trade Name

Phenanthridine, 6-(2-phenylhydrazinyl)-, hydrochloride (1:1) (CA INDEX NAME)



. L8 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:464483 CAPLUS Full-text

Document Number
150:503458

Title
Deep blue **electroluminescent** host material and organic **electroluminescent** element

Author/Inventor
Kim, Byeong Su

Patent Assignee/Corporate Source
LG Display Co., Ltd., S. Korea

Source
Repub. Korean Kongkae Taeho Kongbo, 9pp. CODEN: KRXXA7

Document Type
Patent

Language
Korean

Patent Information

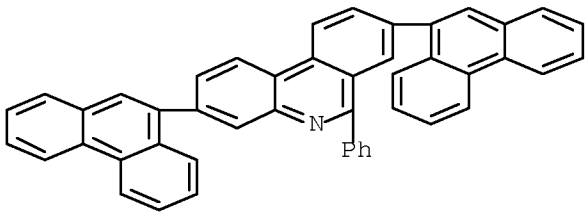
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2009036441	A	20090414	KR 2007-101631	20071009

Abstract
This invention provides a host material shown in chemical formula I (R1 = hydrogen, C1-12 alkyl, or substituted or unsubstituted C4-30 aromatic group (capable of containing heteroarom. ring); R2 and R3 = substituted or unsubstituted C4-30 aromatic group (capable of containing heteroarom. ring)) and an organic **electroluminescent** element capable of emitting deep blue light by using the host material.

Hit Structure

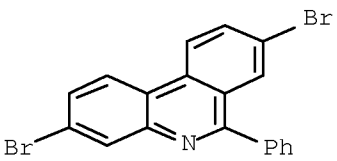
CAS Registry Number
1149348-24-2 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-di-9-phenanthrenyl-6-phenyl- (CA INDEX NAME)



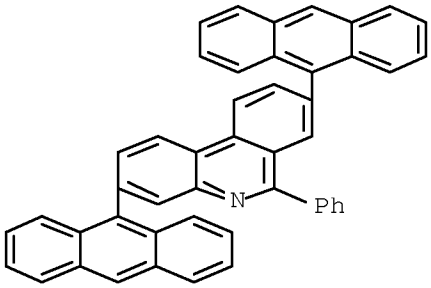
CAS Registry Number
855622-88-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-dibromo-6-phenyl- (CA INDEX NAME)



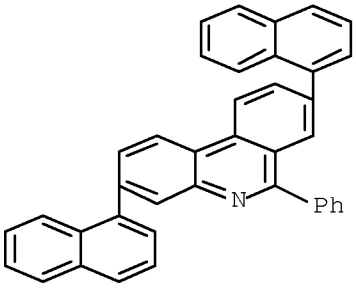
CAS Registry Number
1149348-26-4 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-di-9-anthracenyl-6-phenyl- (CA INDEX NAME)



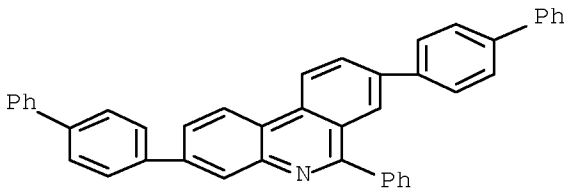
CAS Registry Number
1149348-28-6 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-di-1-naphthalenyl-6-phenyl- (CA INDEX NAME)



CAS Registry Number
1149348-30-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-bis([1,1'-biphenyl]-4-yl)-6-phenyl- (CA INDEX NAME)



. L8 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2009:422839 CAPLUS Full-text

Document Number
150:427188

Title
Polyheteroarenes, their compositions and films, organic photoelectric converters and **electroluminescent** devices with their layers, and monomers for them

Author/Inventor
Uetani, Yasunori; Noguchi, Kiminobu

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 51pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

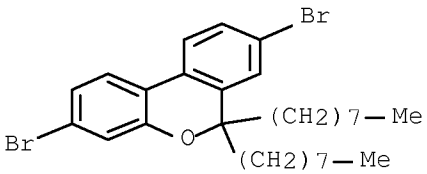
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009073808	A	20090409	JP 2008-115201	20080425

Abstract
The polyheteroarenes have structural repeating units represented by I (R = H, alkyl, alkoxy, alkylthio, etc.; R1 = H, alkyl, alkoxy, aryl, cyano; Ar1 = arylene, heterocyclylene; Z = O, S; m, n = 2-4), preferably II (R, R1, Ar1 = same as above). Organic photoelec. converters, e.g., solar cells, have layers containing I show high photoelec. conversion efficiency. The photoelec. converters may also use fullerenes as electron acceptors.

Hit Structure

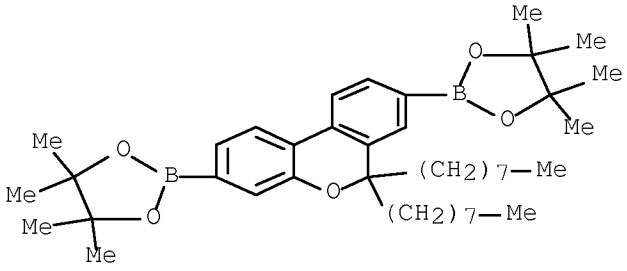
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
688013-75-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)



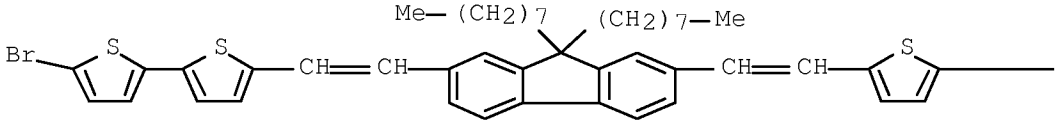
CAS Registry Number
1140830-09-6 CAPLUS

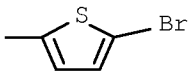
Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-, polymer with 5,5''-[(9,9-dioctyl-9H-fluorene-2,7-diyl)di-2,1-ethenediyl]bis[5'-bromo-2,2'-bithiophene] (CA INDEX NAME)

CM
1

CRN 1140829-98-6
CMF C49 H52 Br2 S4

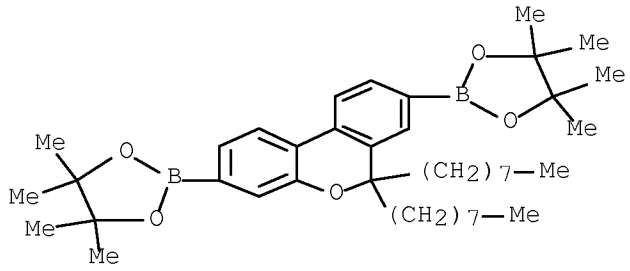
PAGE 1-A





CM
2

CRN 688013-75-4
CMF C41 H64 B2 O5

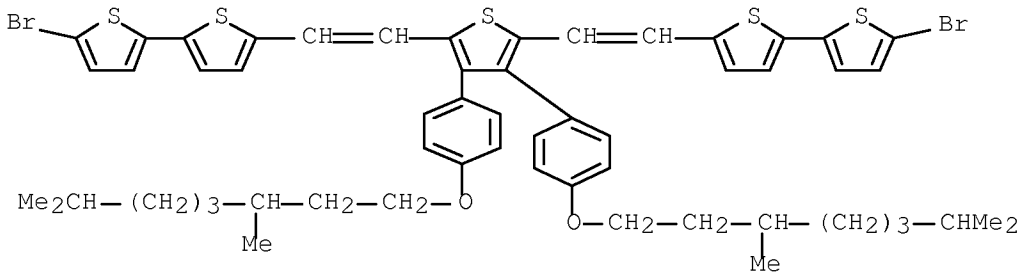


CAS Registry Number
1140830-36-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-, polymer with 5,5''-[[3,4-bis[4-[(3,7-dimethyloctyl)oxy]phenyl]-2,5-thiophenediyl]di-2,1-ethenediyl]bis[5'-bromo-2,2'-bithiophene] (CA INDEX NAME)

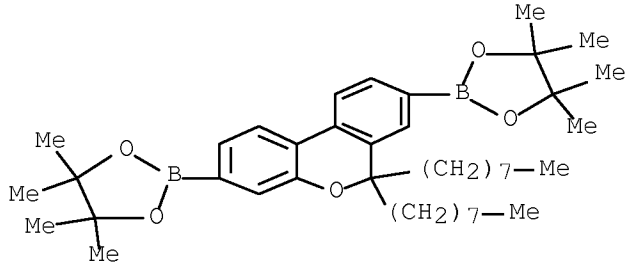
CM
1

CRN 1140830-33-6
CMF C56 H62 Br2 O2 S5



CM
2

CRN 688013-75-4
CMF C41 H64 B2 O5



L8 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2009:121645 CAPLUS Full-text
Document Number
150:249018
Title
Aza-boraphenanthrene derivatives or oxa-boraphenanthrene derivatives, and organic **electroluminescent** device using them

Author/Inventor

Kang, Myeong Sun; Chae, Mi Yeong; Park, Jin Seong; Jung, Ho Guk; Kang, Ui Su

Patent Assignee/Corporate Source

Cheil Industries, Inc., S. Korea

Source

Repub. Korean Kongkae Taeho Kongbo, 40pp. CODEN: KRXXA7

Document Type

Patent

Language

Korean

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2009008736	A	20090122	KR 2007-71932	20070718

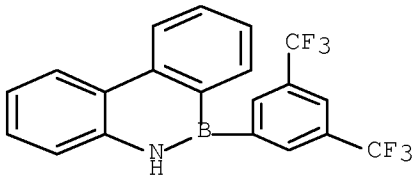
Abstract

The title aza-boraphenanthrene derivs. or oxa-boraphenanthrene derivs. can be expressed by chemical formula I (X = N or O, and R1 = null when X = O; B = boron; R1 - R10 are resp. selected from H, halogen, substituted or non-substituted alkyl, substituted or non-substituted alkoxy, substituted or non-substituted alkenyl, substituted or non-substituted aryl, substituted or non-substituted arylamino, substituted or non-substituted heteroarylamino, substituted or non-substituted O-, N- or S-containing heterocyclic group, substituted amino, nitryl, nitro, halogen group, amido, and ester group, wherein the above groups can form cyclic compds. with adjacent groups and aliphatic or hetero-polymeric cycles). The above compds. play roles of electron hole injection, electron injection and transport, and light emission in organic **light emitting** devices with excellent **light emitting** efficiency, driving voltage, and safety.

Hit Structure

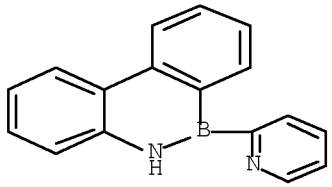
CAS Registry Number
1115476-13-5 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[3,5-bis(trifluoromethyl)phenyl]-5,6-dihydro- (CA INDEX NAME)



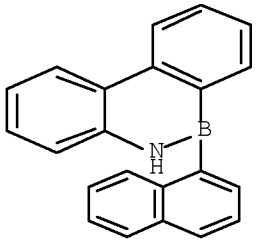
CAS Registry Number
1115476-16-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(2-pyridinyl)- (CA INDEX NAME)



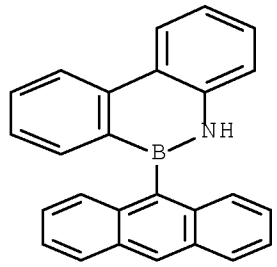
CAS Registry Number
1115476-19-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(1-naphthalenyl)- (CA INDEX NAME)



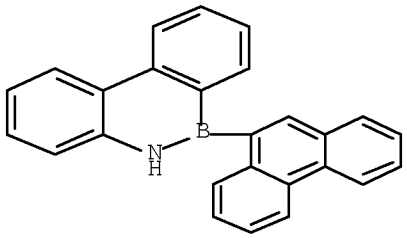
CAS Registry Number
1115476-23-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-5,6-dihydro- (CA INDEX NAME)



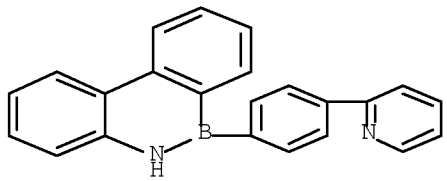
CAS Registry Number
1115476-26-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(9-phenanthrenyl)- (CA INDEX NAME)



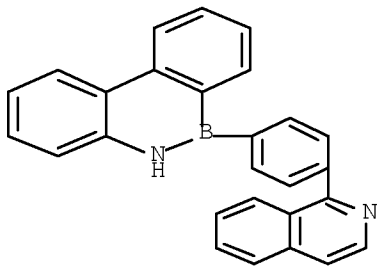
CAS Registry Number
1115476-28-2 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-[4-(2-pyridinyl)phenyl]- (CA INDEX NAME)



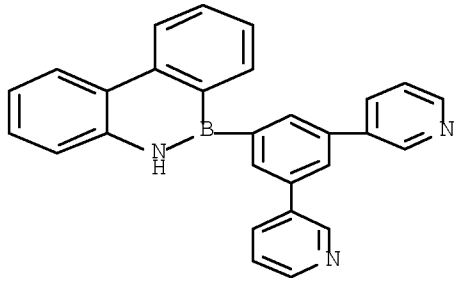
CAS Registry Number
1115476-31-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-[4-(1-isoquinolinyl)phenyl]- (CA INDEX NAME)



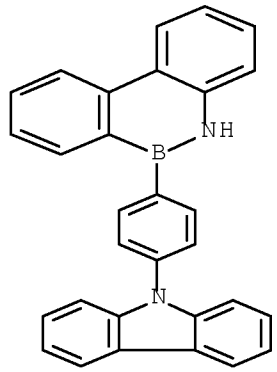
CAS Registry Number
1115476-35-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-5,6-dihydro- (CA INDEX NAME)



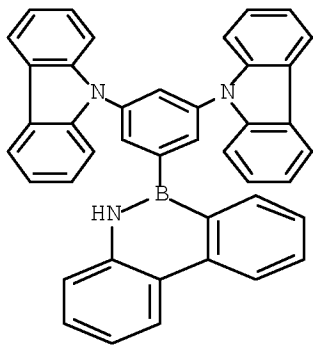
CAS Registry Number
1115476-38-4 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(9H-carbazol-9-yl)phenyl]-5,6-dihydro- (CA INDEX NAME)



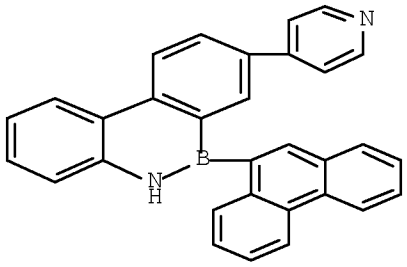
CAS Registry Number
1115476-40-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-9H-carbazol-9-ylphenyl)-5,6-dihydro- (CA INDEX NAME)



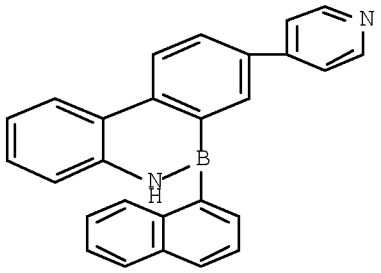
CAS Registry Number
1115476-43-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(9-phenanthrenyl)-8-(4-pyridinyl)- (CA INDEX NAME)



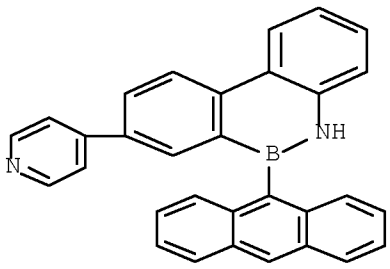
CAS Registry Number
1115476-46-4 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(1-naphthalenyl)-8-(4-pyridinyl)-
(CA INDEX NAME)



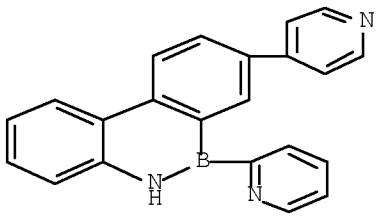
CAS Registry Number
1115476-49-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-5,6-dihydro-8-(4-pyridinyl)-
(CA INDEX NAME)



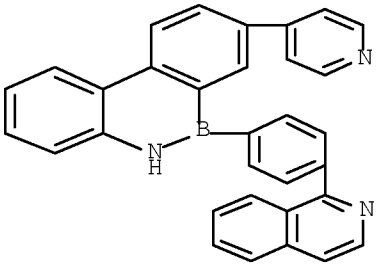
CAS Registry Number
1115476-52-2 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(2-pyridinyl)-8-(4-pyridinyl)-
(CA INDEX NAME)



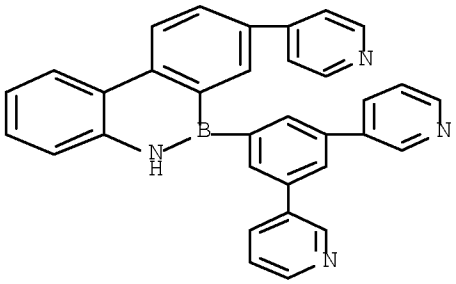
CAS Registry Number
1115476-55-5 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-[4-(1-isoquinolinyl)phenyl]-8-(4-pyridinyl)- (CA INDEX NAME)



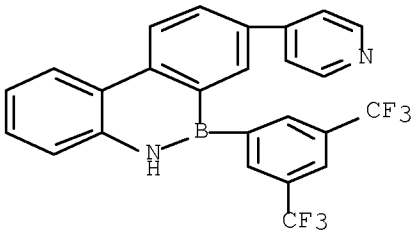
CAS Registry Number
1115476-58-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-5,6-dihydro-8-(4-pyridinyl)- (CA INDEX NAME)



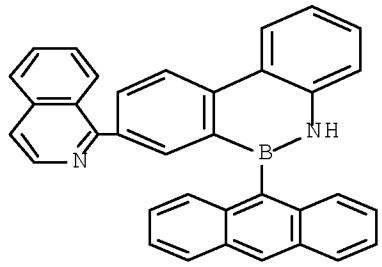
CAS Registry Number
1115476-61-3 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[3,5-bis(trifluoromethyl)phenyl]-5,6-dihydro-8-(4-pyridinyl)- (CA INDEX NAME)



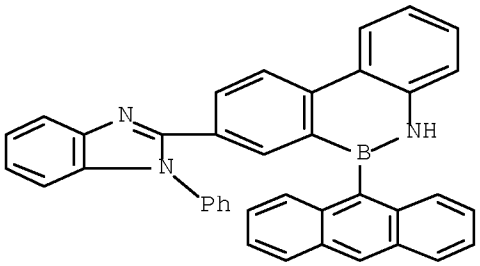
CAS Registry Number
1115476-64-6 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-5,6-dihydro-8-(1-isoquinolinyl)- (CA INDEX NAME)



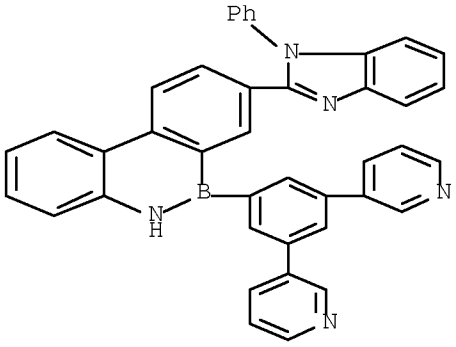
CAS Registry Number
1115476-67-9 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)- (CA INDEX NAME)



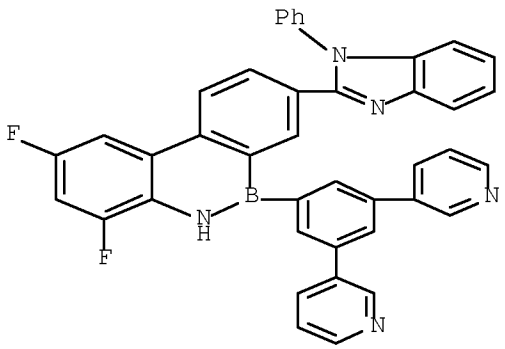
CAS Registry Number
1115476-70-4 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)- (CA INDEX NAME)



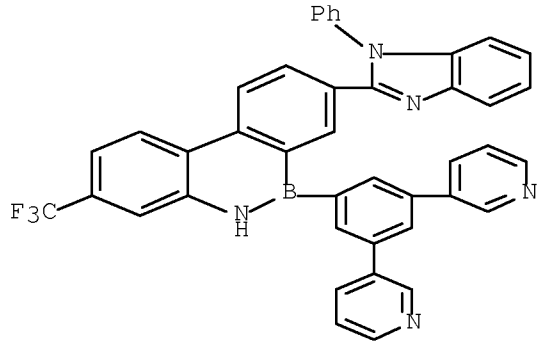
CAS Registry Number
1115476-73-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-2,4-difluoro-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)- (CA INDEX NAME)



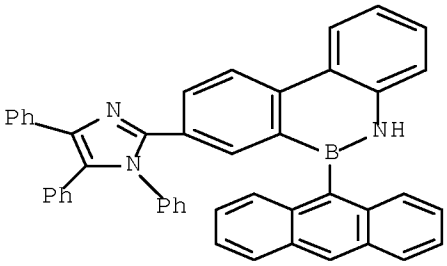
CAS Registry Number
1115476-76-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-3-(trifluoromethyl)- (CA INDEX NAME)



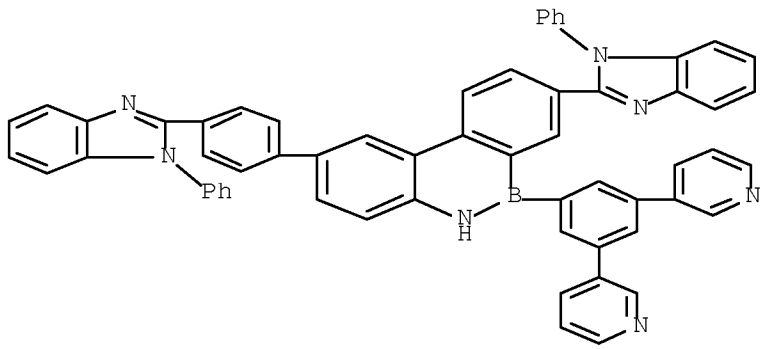
CAS Registry Number
1115476-79-3 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-5,6-dihydro-8-(1,4,5-triphenyl-1H-imidazol-2-yl)- (CA INDEX NAME)



CAS Registry Number
1115476-82-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-3-pyridinylphenyl)-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



CAS Registry Number
1115476-85-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 2-(3,5-di-3-pyridinylphenyl)-5,6-dihydro-6-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-7,9-di-3-pyridinyl- (CA INDEX NAME)

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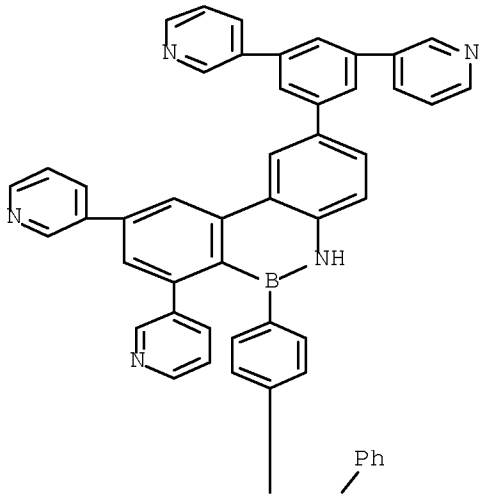

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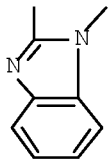
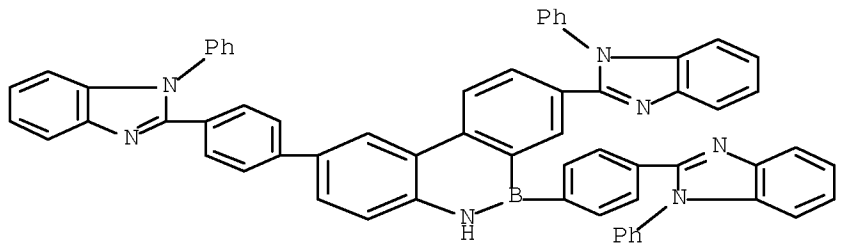


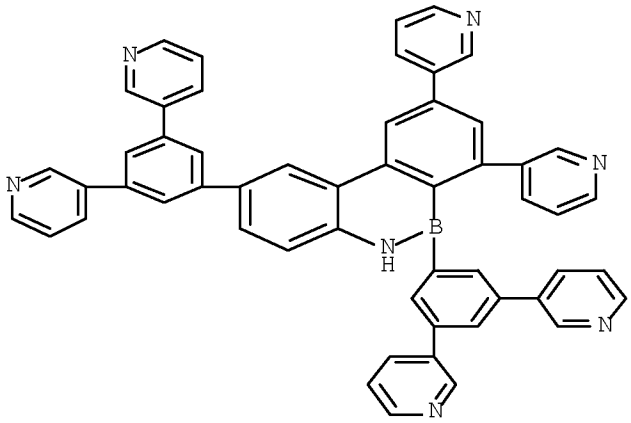
CAS Registry Number
1115476-89-5 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-2,6-bis[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



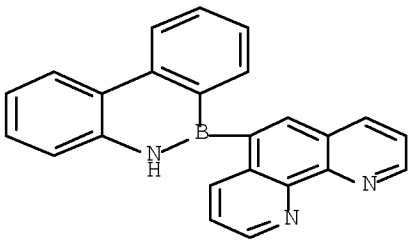
CAS Registry Number
1115476-92-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 2,6-bis(3,5-di-3-pyridinylphenyl)-5,6-dihydro-7,9-di-3-pyridinyl- (CA INDEX NAME)



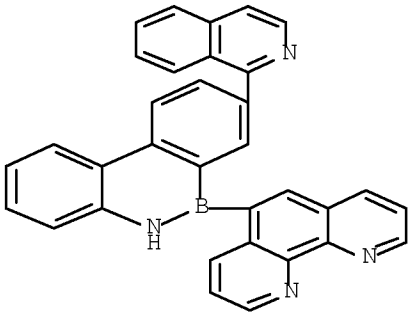
CAS Registry Number
1115477-09-2 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(1,10-phenanthrolin-5-yl)- (CA INDEX NAME)



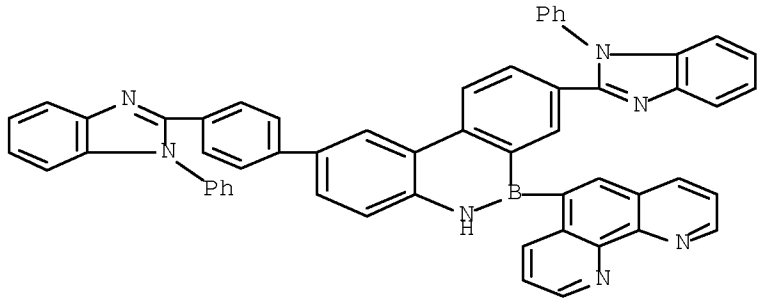
CAS Registry Number
1115477-12-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-8-(1-isoquinolinyl)-6-(1,10-phenanthrolin-5-yl)- (CA INDEX NAME)



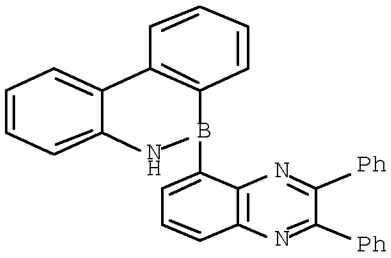
CAS Registry Number
1115477-15-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 5,6-dihydro-6-(1,10-phenanthrolin-5-yl)-8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-
(CA INDEX NAME)



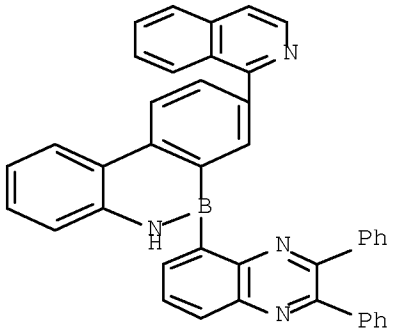
CAS Registry Number
1115477-18-3 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(2,3-diphenyl-5-quinoxalinyl)-5,6-dihydro-
(CA INDEX NAME)



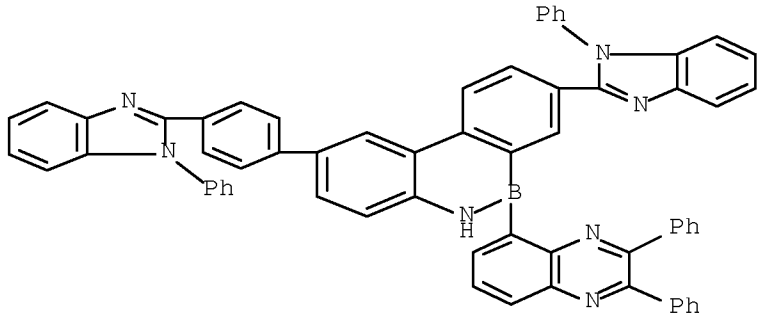
CAS Registry Number
1115477-21-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(2,3-diphenyl-5-quinoxalinyl)-5,6-dihydro-8-(1-isoquinolinyl)- (CA INDEX NAME)



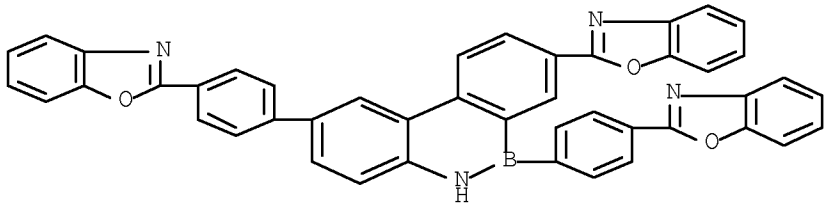
CAS Registry Number
1115477-25-2 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(2,3-diphenyl-5-quinoxalinyl)-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



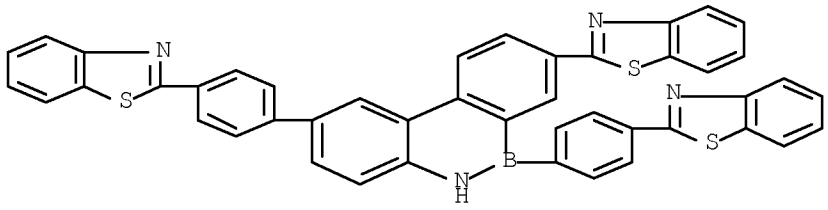
CAS Registry Number
1115477-27-4 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(2-benzoxazolyl)-2,6-bis[4-(2-benzoxazolyl)phenyl]-5,6-dihydro- (CA INDEX NAME)



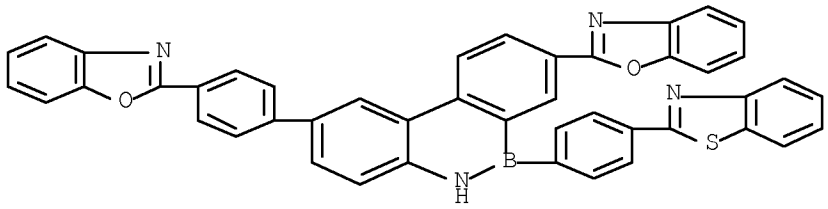
CAS Registry Number
1115477-31-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(2-benzothiazolyl)-2,6-bis[4-(2-benzothiazolyl)phenyl]-5,6-dihydro- (CA INDEX NAME)



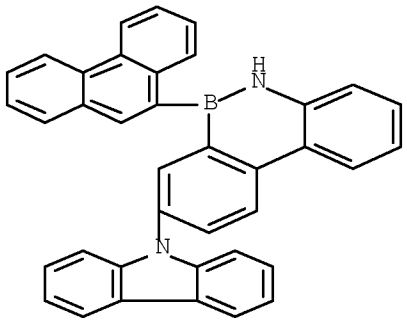
CAS Registry Number
1115477-34-3 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(2-benzothiazolyl)phenyl]-8-(2-benzoxazolyl)-2-[4-(2-benzoxazolyl)phenyl]-5,6-dihydro- (CA INDEX NAME)



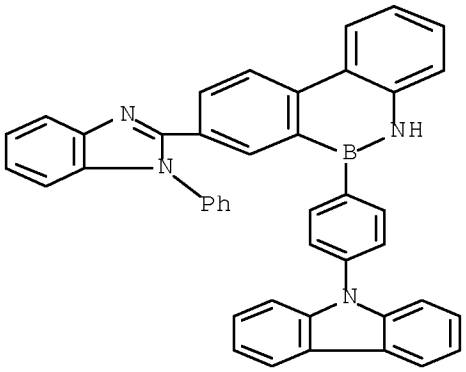
CAS Registry Number
1115477-37-6 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(9H-carbazol-9-yl)-5,6-dihydro-6-(9-phenanthrenyl)- (CA INDEX NAME)



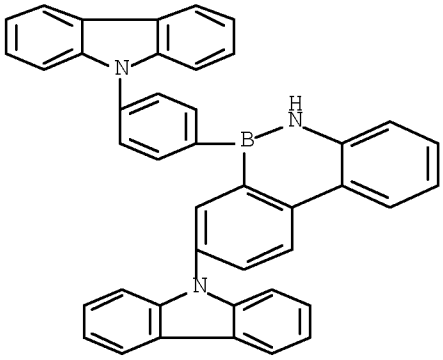
CAS Registry Number
1115477-39-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(9H-carbazol-9-yl)phenyl]-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)- (CA INDEX NAME)



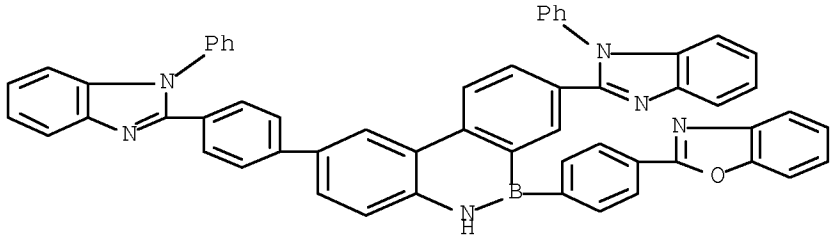
CAS Registry Number
1115477-42-3 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(9H-carbazol-9-yl)-6-[4-(9H-carbazol-9-yl)phenyl]-5,6-dihydro- (CA INDEX NAME)



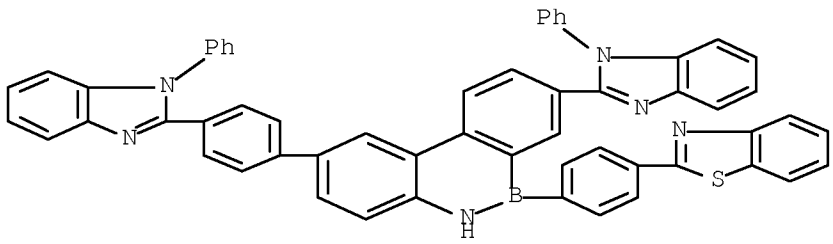
CAS Registry Number
1115477-46-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(2-benzoxazolyl)phenyl]-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



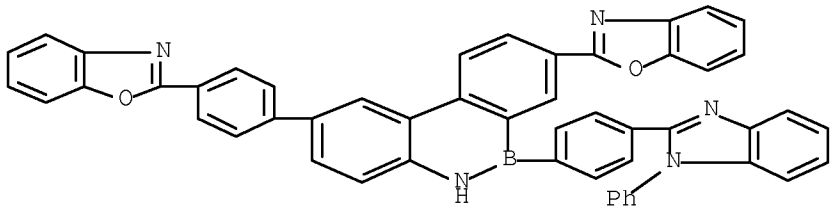
CAS Registry Number
1115477-49-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(2-benzothiazolyl)phenyl]-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



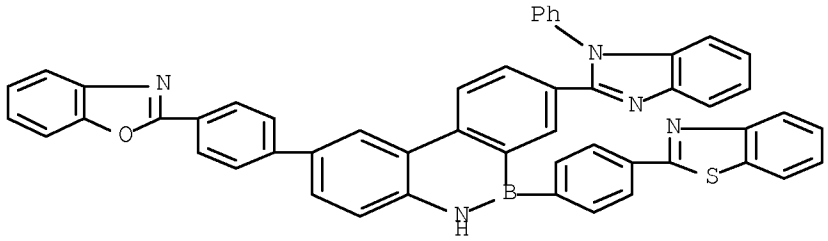
CAS Registry Number
1115477-51-4 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(2-benzoxazolyl)-2-[4-(2-benzoxazolyl)phenyl]-5,6-dihydro-6-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)



CAS Registry Number
1115477-54-7 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-[4-(2-benzothiazolyl)phenyl]-2-[4-(2-benzoxazolyl)phenyl]-5,6-dihydro-8-(1-phenyl-1H-benzimidazol-2-yl)- (CA INDEX NAME)



CAS Registry Number
1115477-57-0 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(9H-carbazol-9-yl)-2,6-bis[4-(9H-carbazol-9-yl)phenyl]-5,6-dihydro- (CA INDEX NAME)

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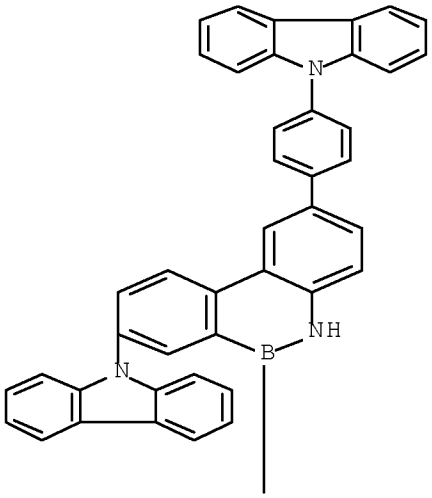

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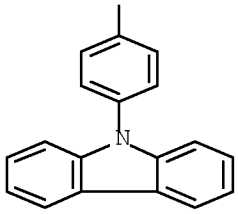

CAS Registry Number
1115477-60-5 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 8-(9H-carbazol-9-yl)-2-[4-(9H-carbazol-9-yl)phenyl]-5,6-dihydro-6-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]- (CA INDEX NAME)

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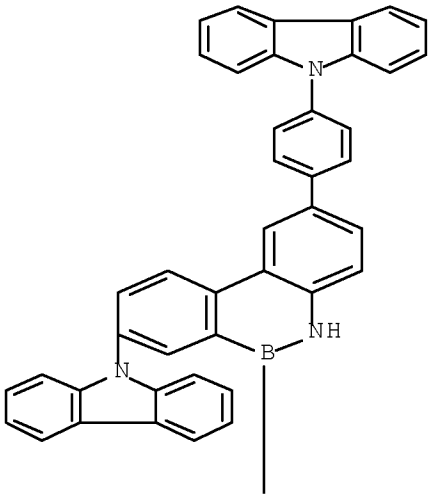
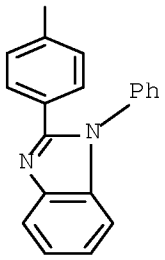
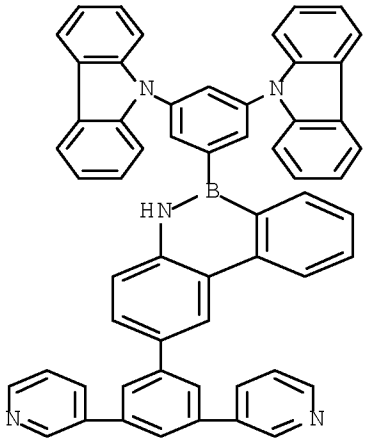




CAS Registry Number
1115477-63-8 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-9H-carbazol-9-ylphenyl)-2-(3,5-di-3-pyridinylphenyl)-5,6-dihydro- (CA INDEX NAME)



CAS Registry Number
1115477-66-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(3,5-di-9H-carbazol-9-ylphenyl)-5,6-dihydro-8-(1-isoquinolinyl)-2-[4-(1-isoquinolinyl)phenyl]- (CA INDEX NAME)

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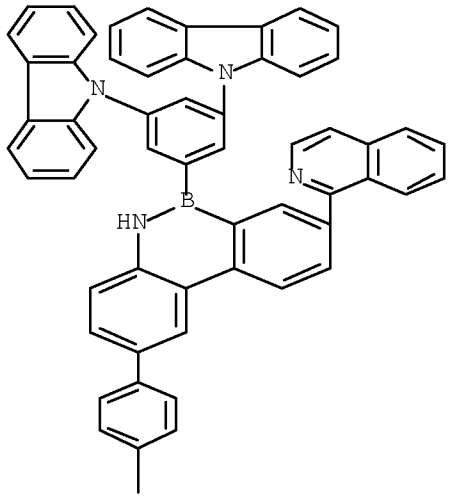

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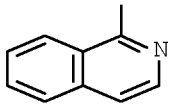
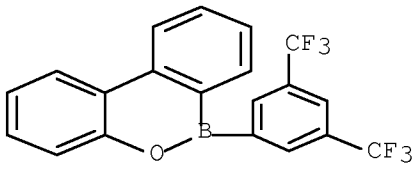


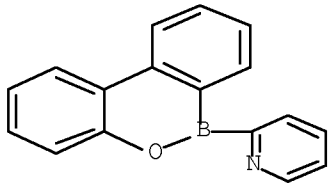
CAS Registry Number
1115477-75-2 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-[3,5-bis(trifluoromethyl)phenyl]- (CA INDEX NAME)



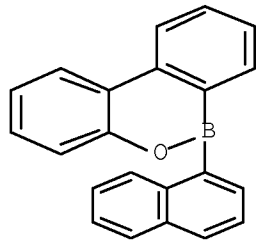
CAS Registry Number
1115477-78-5 CAPLUS

Chemical or Trade Name
Pyridine, 2-(6H-dibenz[c,e][1,2]oxaborin-6-yl)- (CA INDEX NAME)



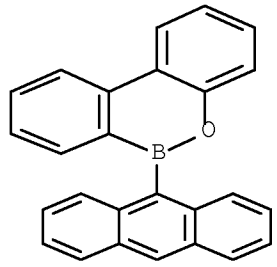
CAS Registry Number
1115477-81-0 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-(1-naphthalenyl)- (CA INDEX NAME)



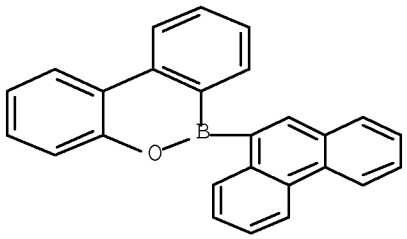
CAS Registry Number
1115477-85-4 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-(9-anthracenyl)- (CA INDEX NAME)



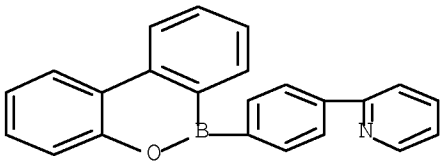
CAS Registry Number
1115477-88-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-(9-phenanthrenyl)- (CA INDEX NAME)



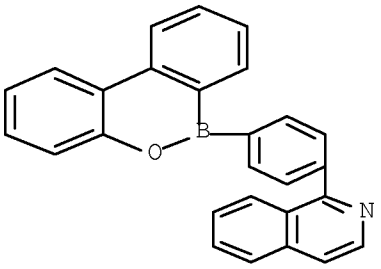
CAS Registry Number
1115477-91-2 CAPLUS

Chemical or Trade Name
Pyridine, 2-[4-(6H-dibenz[c,e][1,2]oxaborin-6-yl)phenyl]- (CA INDEX NAME)



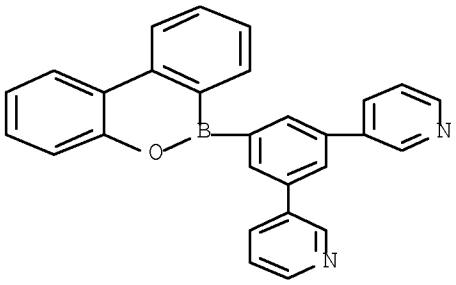
CAS Registry Number
1115477-94-5 CAPLUS

Chemical or Trade Name
Isoquinoline, 1-[4-(6H-dibenz[c,e][1,2]oxaborin-6-yl)phenyl]- (CA INDEX NAME)



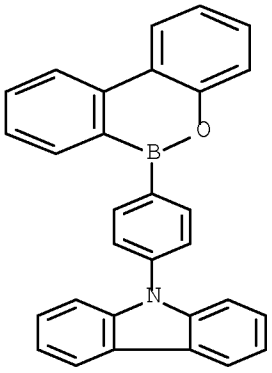
CAS Registry Number
1115477-96-7 CAPLUS

Chemical or Trade Name
Pyridine, 3,3'-[5-(6H-dibenz[c,e][1,2]oxaborin-6-yl)-1,3-phenylene]bis-
(CA INDEX NAME)



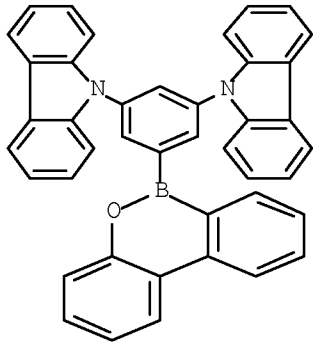
CAS Registry Number
1115477-98-9 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[4-(6H-dibenz[c,e][1,2]oxaborin-6-yl)phenyl]- (CA INDEX
NAME)



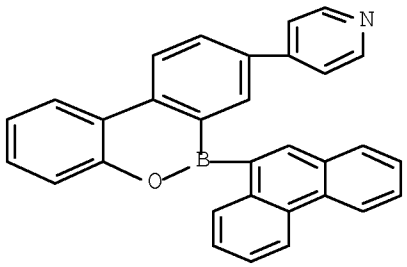
CAS Registry Number
1115478-00-6 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9,9'-[5-(6H-dibenz[c,e][1,2]oxaborin-6-yl)-1,3-phenylene]bis-
  (CA INDEX NAME)



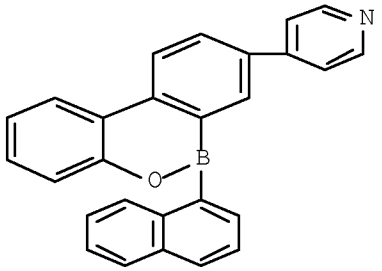
CAS Registry Number
1115478-02-8 CAPLUS

Chemical or Trade Name
Pyridine, 4-[6-(9-phenanthrenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



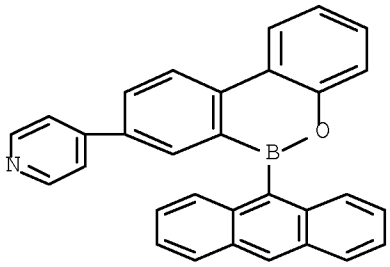
CAS Registry Number
1115478-04-0 CAPLUS

Chemical or Trade Name
Pyridine, 4-[6-(1-naphthalenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



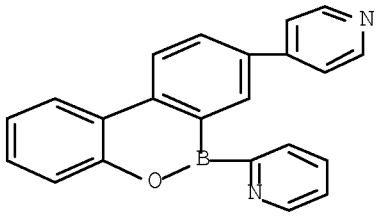
CAS Registry Number
1115478-06-2 CAPLUS

Chemical or Trade Name
Pyridine, 4-[6-(9-anthracenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



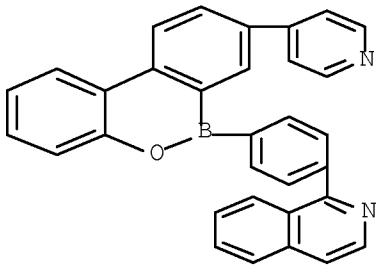
CAS Registry Number
1115478-08-4 CAPLUS

Chemical or Trade Name
Pyridine, 2-[8-(4-pyridinyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]- (CA INDEX NAME)



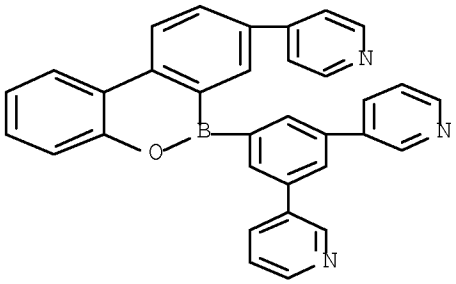
CAS Registry Number
1115478-10-8 CAPLUS

Chemical or Trade Name
Isoquinoline, 1-[4-[8-(4-pyridinyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



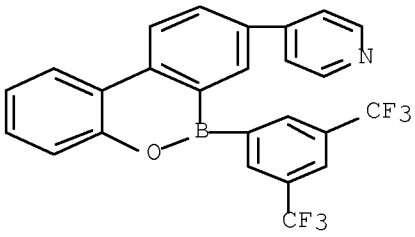
CAS Registry Number
1115478-11-9 CAPLUS

Chemical or Trade Name
Pyridine, 3-[3-(3-pyridinyl)-5-[8-(4-pyridinyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



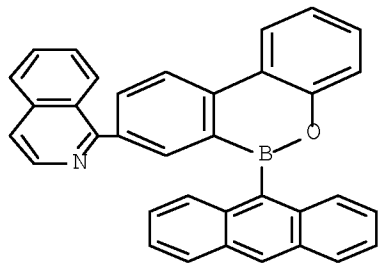
CAS Registry Number
1115478-12-0 CAPLUS

Chemical or Trade Name
Pyridine, 4-[6-[3,5-bis(trifluoromethyl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



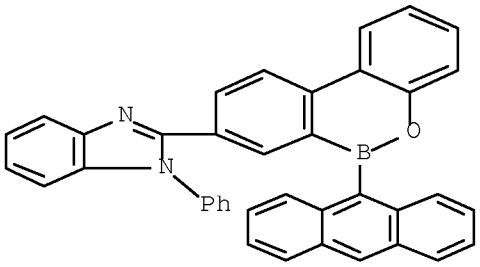
CAS Registry Number
1115478-13-1 CAPLUS

Chemical or Trade Name
Isoquinoline, 1-[6-(9-anthracenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



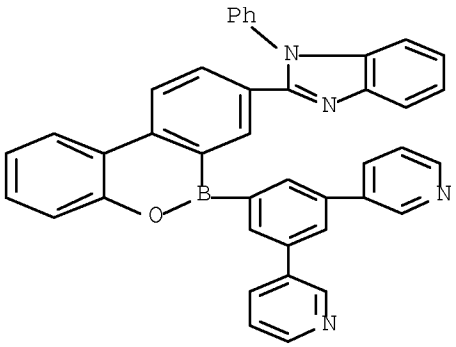
CAS Registry Number
1115478-14-2 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[6-(9-anthracenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]-1-phenyl- (CA INDEX NAME)



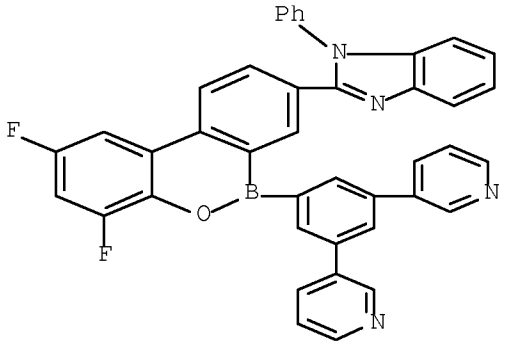
CAS Registry Number
1115478-15-3 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[6-(3,5-di-3-pyridinylphenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]-1-phenyl- (CA INDEX NAME)



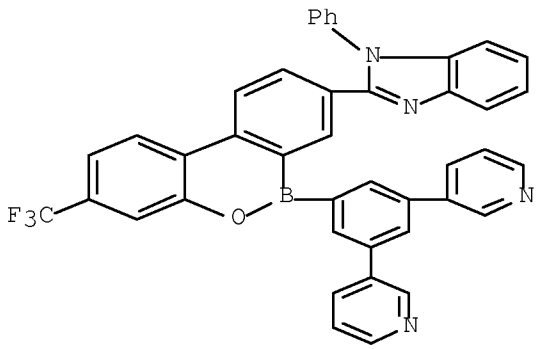
CAS Registry Number
1115478-16-4 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[6-(3,5-di-3-pyridinylphenyl)-2,4-difluoro-6H-dibenz[c,e][1,2]oxaborin-8-yl]-1-phenyl- (CA INDEX NAME)



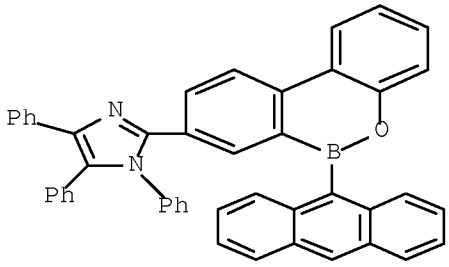
CAS Registry Number
1115478-18-6 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[6-(3,5-di-3-pyridinylphenyl)-3-(trifluoromethyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]-1-phenyl- (CA INDEX NAME)



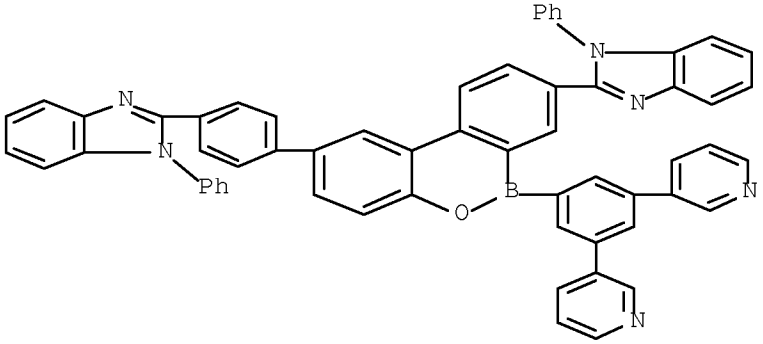
CAS Registry Number
1115478-19-7 CAPLUS

Chemical or Trade Name
1H-Imidazole, 2-[6-(9-anthracenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]-1,4,5-triphenyl- (CA INDEX NAME)



CAS Registry Number
1115478-22-2 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[4-[6-(3,5-di-3-pyridinylphenyl)-8-(1-phenyl-1H-benzimidazol-2-yl)-6H-dibenz[c,e][1,2]oxaborin-2-yl]phenyl]-1-phenyl- (CA INDEX NAME)



CAS Registry Number
1115478-24-4 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2-[4-[2-(3,5-di-3-pyridinylphenyl)-7,9-di-3-pyridinyl-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]-1-phenyl- (CA INDEX NAME)

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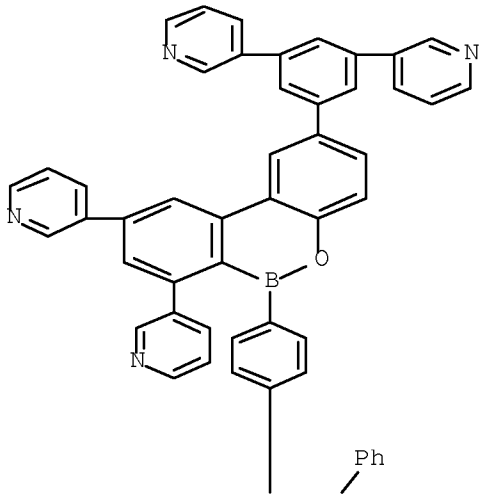

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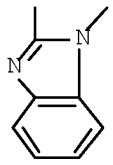
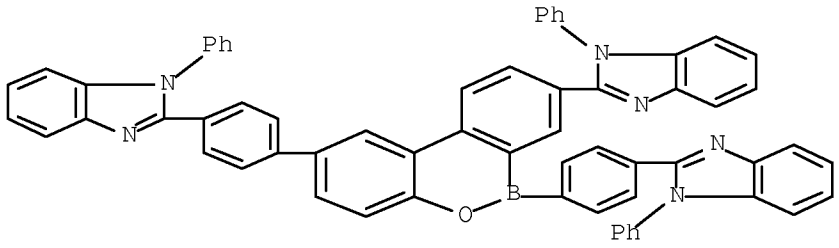


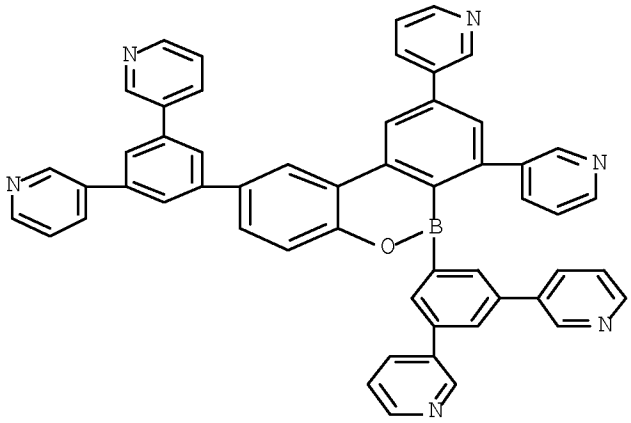
CAS Registry Number
1115478-26-6 CAPLUS

Chemical or Trade Name
1H-Benzimidazole, 2,2'-[[8-(1-phenyl-1H-benzimidazol-2-yl)-6H-dibenz[c,e][1,2]oxaborin-2,6-diyl]di-4,1-phenylene]bis[1-phenyl- (CA INDEX NAME)



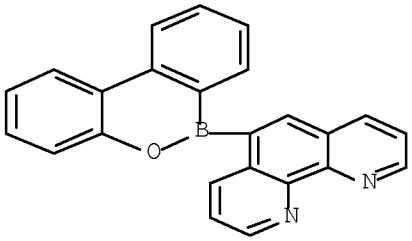
CAS Registry Number
1115478-27-7 CAPLUS

Chemical or Trade Name
Pyridine, 3,3',3'',3'''-[(7,9-di-3-pyridinyl-6H-dibenz[c,e][1,2]oxaborin-2,6-diyl)di-5,1,3-benzenetriyl]tetrakis- (CA INDEX NAME)



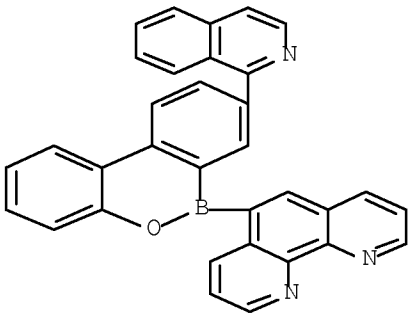
CAS Registry Number
1115478-40-4 CAPLUS

Chemical or Trade Name
1,10-Phenanthroline, 5-(6H-dibenz[c,e][1,2]oxaborin-6-yl)- (CA INDEX NAME)



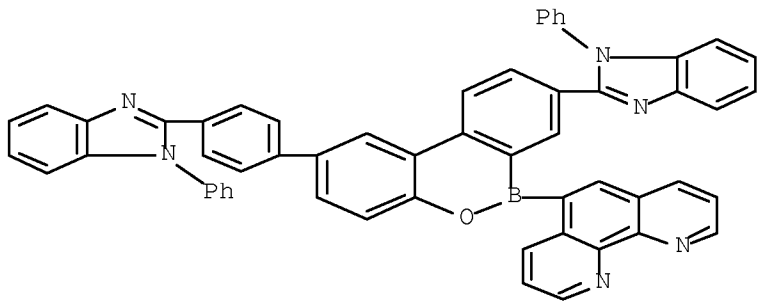
CAS Registry Number
1115478-42-6 CAPLUS

Chemical or Trade Name
1,10-Phenanthroline, 5-[8-(1-isoquinolinyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]- (CA INDEX NAME)



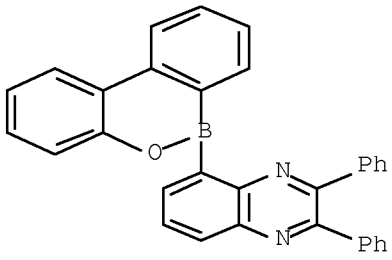
CAS Registry Number
1115478-45-9 CAPLUS

Chemical or Trade Name
1,10-Phenanthroline, 5-[8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-6-yl]- (CA INDEX NAME)



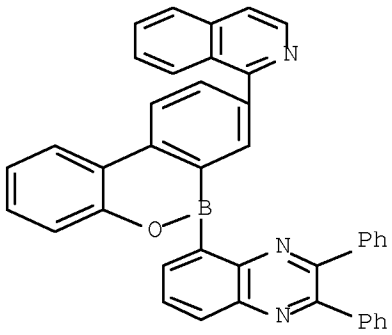
CAS Registry Number
1115478-47-1 CAPLUS

Chemical or Trade Name
Quinoxaline, 5-(6H-dibenz[c,e][1,2]oxaborin-6-yl)-2,3-diphenyl- (CA INDEX NAME)



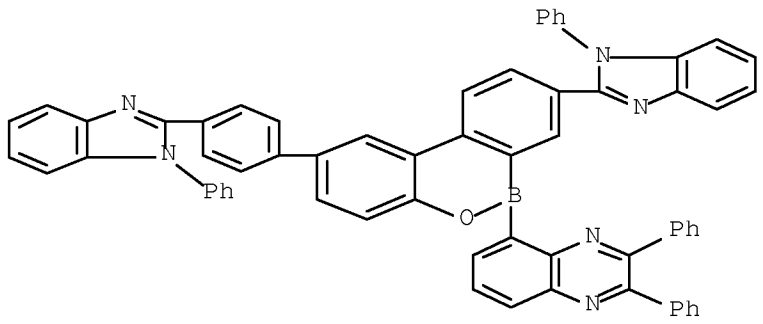
CAS Registry Number
1115478-48-2 CAPLUS

Chemical or Trade Name
Quinoxaline, 5-[8-(1-isoquinolinyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]-2,3-diphenyl- (CA INDEX NAME)



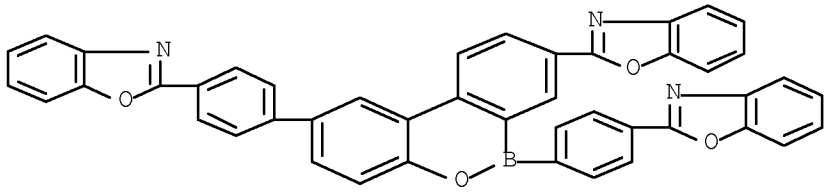
CAS Registry Number
1115478-51-7 CAPLUS

Chemical or Trade Name
Quinoxaline, 2,3-diphenyl-5-[8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-6-yl]- (CA INDEX NAME)



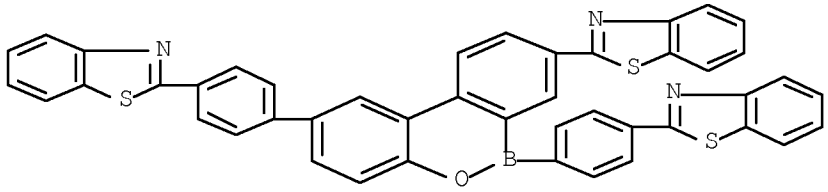
CAS Registry Number
1115478-53-9 CAPLUS

Chemical or Trade Name
Benzoxazole, 2,2'-[[8-(2-benzoxazolyl)-6H-bibenz[c,e][1,2]oxaborin-2,6-diyl]di-4,1-phenylene]bis- (CA INDEX NAME)



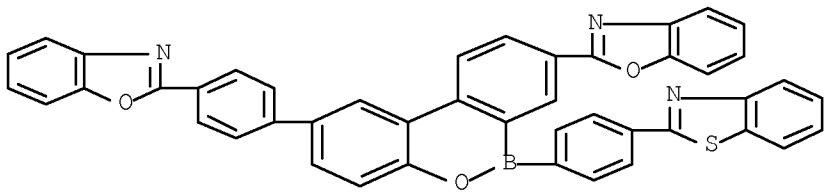
CAS Registry Number
1115478-55-1 CAPLUS

Chemical or Trade Name
Benzothiazole, 2,2'-[[8-(2-benzothiazolyl)-6H-bibenz[c,e][1,2]oxaborin-2,6-diyl]di-4,1-phenylene]bis- (CA INDEX NAME)



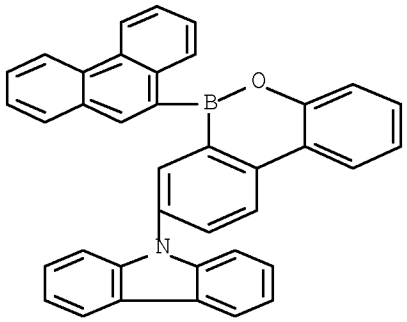
CAS Registry Number
1115478-56-2 CAPLUS

Chemical or Trade Name
Benzoxazole, 2-[4-[6-[4-(2-benzothiazolyl)phenyl]-8-(2-benzoxazolyl)-6H-dibenz[c,e][1,2]oxaborin-2-yl]phenyl]- (CA INDEX NAME)



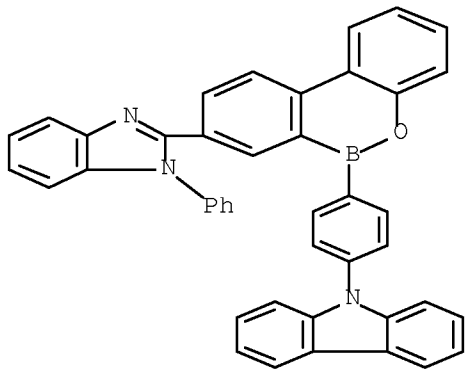
CAS Registry Number
1115478-59-5 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[6-(9-phenanthrenyl)-6H-dibenz[c,e][1,2]oxaborin-8-yl]- (CA INDEX NAME)



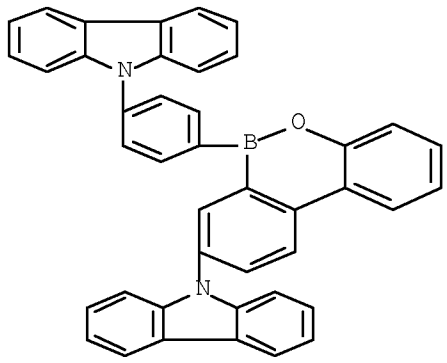
CAS Registry Number
1115478-61-9 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[4-[8-(1-phenyl-1H-benzimidazol-2-yl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



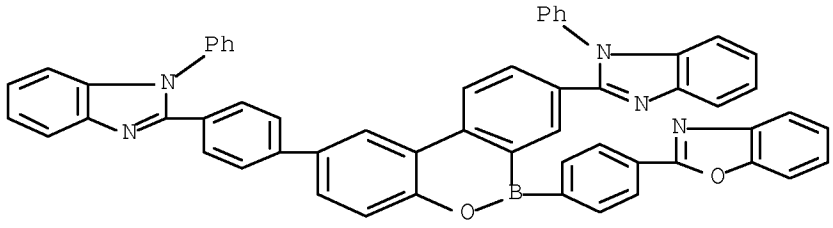
CAS Registry Number
1115478-63-1 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[4-[8-(9H-carbazol-9-yl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



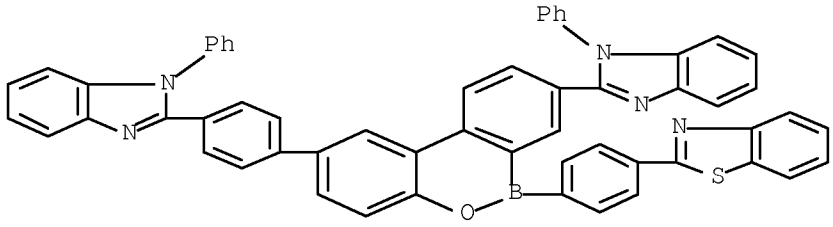
CAS Registry Number
1115478-64-2 CAPLUS

Chemical or Trade Name
Benzoxazole, 2-[4-[8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



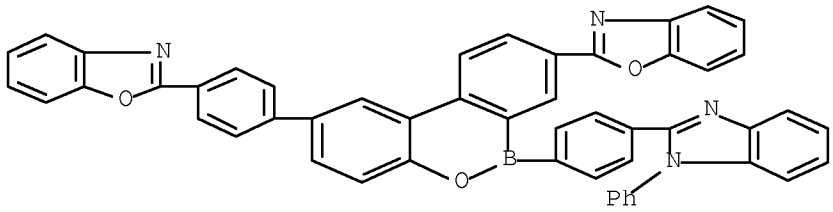
CAS Registry Number
1115478-66-4 CAPLUS

Chemical or Trade Name
Benzothiazole, 2-[4-[8-(1-phenyl-1H-benzimidazol-2-yl)-2-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-6-yl]phenyl]- (CA INDEX NAME)



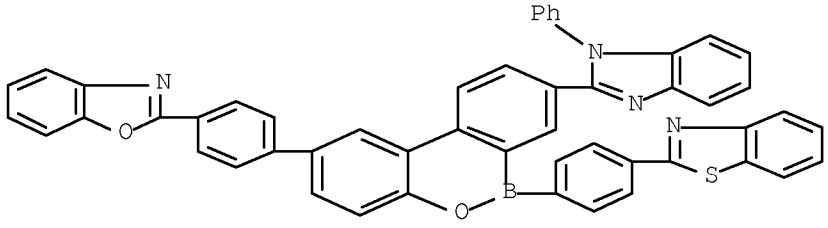
CAS Registry Number
1115478-68-6 CAPLUS

Chemical or Trade Name
Benzoxazole, 2-[4-[8-(2-benzoxazolyl)-6-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-2-yl]phenyl]- (CA INDEX NAME)



CAS Registry Number
1115478-70-0 CAPLUS

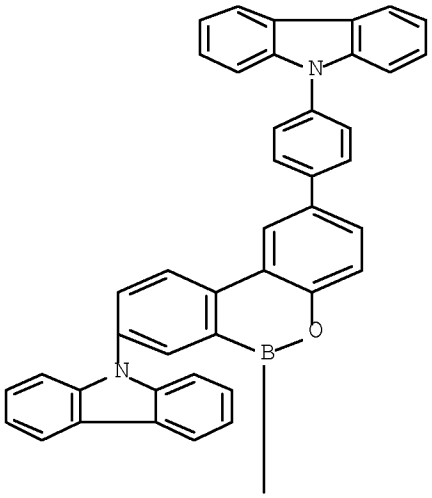
Chemical or Trade Name
Benzoxazole, 2-[4-[6-[4-(2-benzothiazolyl)phenyl]-8-(1-phenyl-1H-benzimidazol-2-yl)-6H-dibenz[c,e][1,2]oxaborin-2-yl]phenyl]- (CA INDEX NAME)



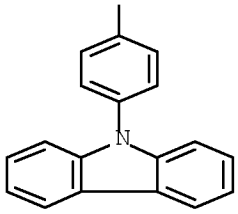
CAS Registry Number
1115478-73-3 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9,9'-[[8-(9H-carbazol-9-yl)-6H-bibenz[c,e][1,2]oxaborin-2,6-diyl]di-4,1-phenylene]bis- (CA INDEX NAME)

PAGE 1-A



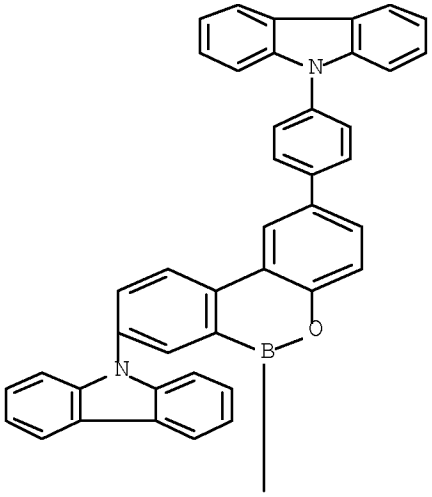
PAGE 2-A

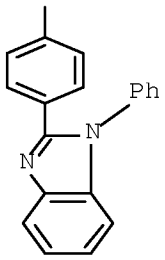


CAS Registry Number
1115478-76-6 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[4-[8-(9H-carbazol-9-yl)-6-[4-(1-phenyl-1H-benzimidazol-2-yl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-2-yl]phenyl]- (CA INDEX NAME)

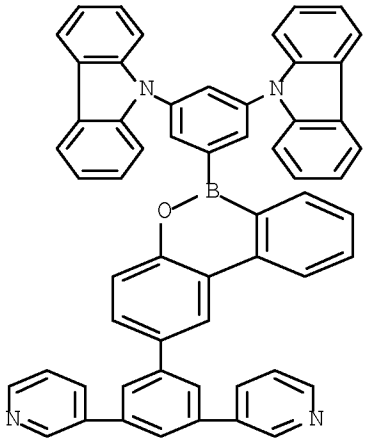
PAGE 1-A





CAS Registry Number
1115478-79-9 CAPLUS

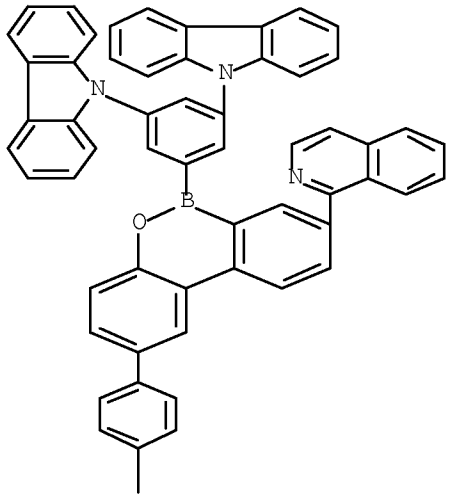
Chemical or Trade Name
9H-Carbazole, 9,9'-[5-[2-(3,5-di-3-pyridinylphenyl)-6H-dibenz[c,e][1,2]oxaborin-6-yl]-1,3-phenylene]bis- (CA INDEX NAME)



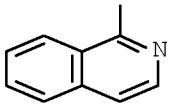
CAS Registry Number
1115478-83-5 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9,9'-[5-[8-(1-isoquinolinyl)-2-[4-(1-isoquinolinyl)phenyl]-6H-dibenz[c,e][1,2]oxaborin-6-yl]-1,3-phenylene]bis- (CA INDEX NAME)

PAGE 1-A

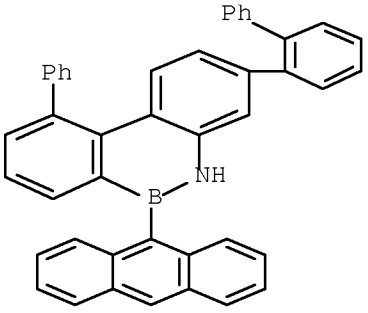


PAGE 2-A



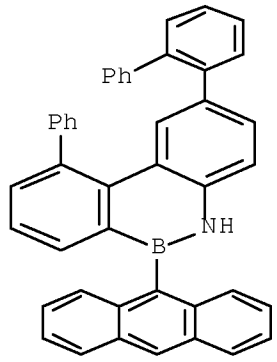
CAS Registry Number
1115478-92-6 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-3-[1,1'-biphenyl]-2-yl-5,6-dihydro-10-phenyl- (CA INDEX NAME)



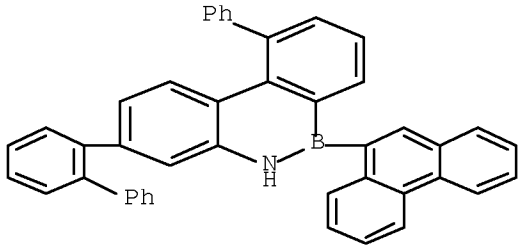
CAS Registry Number
1115478-95-9 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 6-(9-anthracenyl)-2-[1,1'-biphenyl]-2-yl-5,6-dihydro-10-phenyl- (CA INDEX NAME)



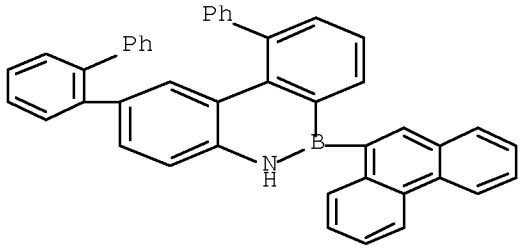
CAS Registry Number
1115478-97-1 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 3-[1,1'-biphenyl]-2-yl-5,6-dihydro-6-(9-phenanthrenyl)-10-phenyl- (CA INDEX NAME)



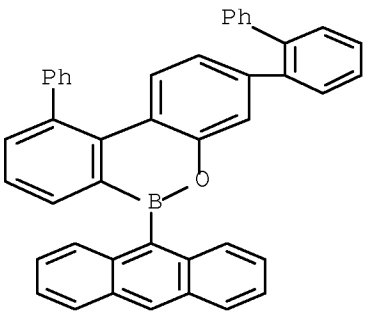
CAS Registry Number
1115478-98-2 CAPLUS

Chemical or Trade Name
Dibenz[c,e][1,2]azaborine, 2-[1,1'-biphenyl]-2-yl-5,6-dihydro-6-(9-phenanthrenyl)-10-phenyl- (CA INDEX NAME)



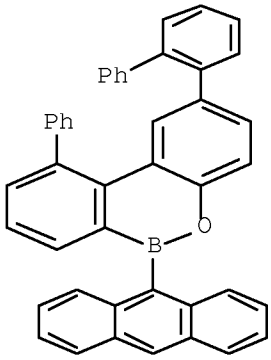
CAS Registry Number
1115479-01-0 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-(9-anthracenyl)-3-[1,1'-biphenyl]-2-yl-10-phenyl- (CA INDEX NAME)



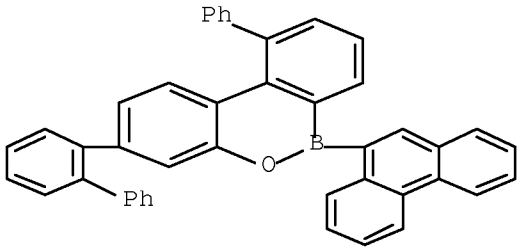
CAS Registry Number
1115479-05-4 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 6-(9-anthracenyl)-2-[1,1'-biphenyl]-2-yl-10-phenyl- (CA INDEX NAME)



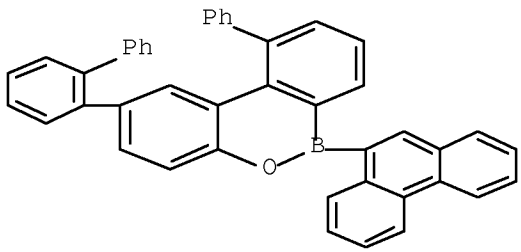
CAS Registry Number
1115479-08-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 3-[1,1'-biphenyl]-2-yl-6-(9-phenanthrenyl)-10-phenyl- (CA INDEX NAME)



CAS Registry Number
1115479-11-2 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaborin, 2-[1,1'-biphenyl]-2-yl-6-(9-phenanthrenyl)-10-phenyl- (CA INDEX NAME)



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Accession Number
2008:1536783 CAPLUS Full-text

Document Number
150:86349

Title
Blue phosphorescent iridium complexes and **light-emitting** devices using them

Author/Inventor
Knowles, David B.; Lin, Chun; Mackenzie, Peter Borden; Tsai, Jui-Yi; Walters, Robert; Beers, Scott A.; Brown, Cory S.; Yeager, Walter H.; Barron, Edward

Patent Assignee/Corporate Source
Universal Display Corporation, USA

Source
PCT Int. Appl., 206pp. CODEN: PIXXD2

Document Type
Patent

Language
English

Patent Information

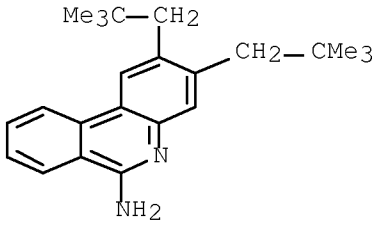
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008156879	A1	20081224	WO 2008-US56297	20080307
US 20080297033	A1	20081204	US 2008-44605	20080307

Abstract
Iridium complexes are described by the general formula I (n = 1, 2, or 3; R1a, R1b, R1c, R1d, R1e, R1f, R1g, R1h, and R1i = independently selected hydrocarbyl, heteroatom substituted hydrocarbyl, cyano, fluoro, OR2a, SR2a, NR2aR2b, BR2aR2b, or SiR2aR2bR2c, where R2a-c = independently selected hydrocarbyl or heteroatom substituted hydrocarbyl, and where any two of R1a-i and R2a-c may be linked to form a saturated or unsatd., aromatic or non-aromatic ring; and X-Y = an ancillary ligand). Organic **light emitting** devices comprising selected complexes are also described.

Hit Structure

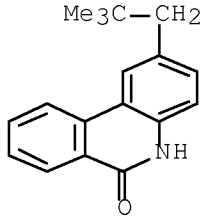
CAS Registry Number
1089735-06-7 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-bis(2,2-dimethylpropyl)- (CA INDEX NAME)



CAS Registry Number
1089735-09-0 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 2-(2,2-dimethylpropyl)- (CA INDEX NAME)



CAS Registry Number
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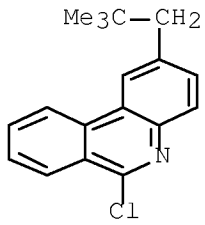
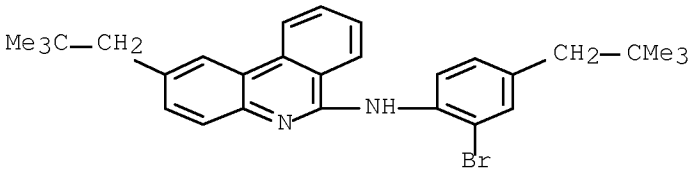
Chemical or Trade Name
Phenanthridine, 6-chloro-2-(2,2-dimethylpropyl)- (CA INDEX NAME)



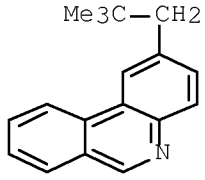
CAS Registry Number
1089735-11-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-[2-bromo-4-(2,2-dimethylpropyl)phenyl]-2-(2,2-dimethylpropyl)- (CA INDEX NAME)



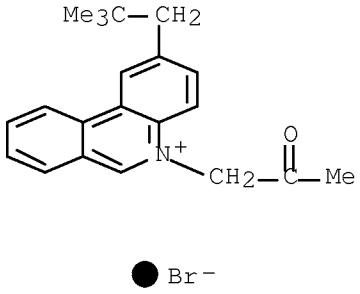
CAS Registry Number
1089735-29-4 CAPLUS

Chemical or Trade Name
Phenanthridine, 2-(2,2-dimethylpropyl)- (CA INDEX NAME)



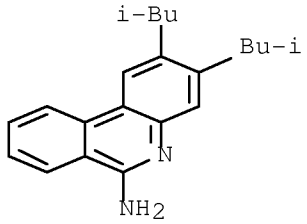
CAS Registry Number
1089735-30-7 CAPLUS

Chemical or Trade Name
Phenanthridinium, 2-(2,2-dimethylpropyl)-5-(2-oxopropyl)-, bromide (1:1)
(CA INDEX NAME)



CAS Registry Number
1089735-36-3 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-bis(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number
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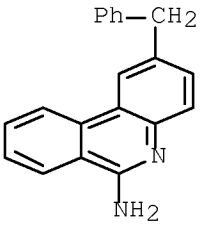
Chemical or Trade Name
6-Phenanthridinamine, 2-(phenylmethyl)- (CA INDEX NAME)



CAS Registry Number
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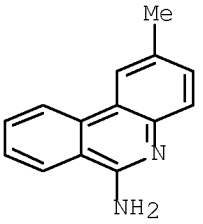
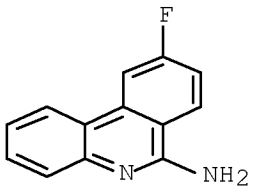
Chemical or Trade Name
6-Phenanthridinamine, 2-methyl- (CA INDEX NAME)



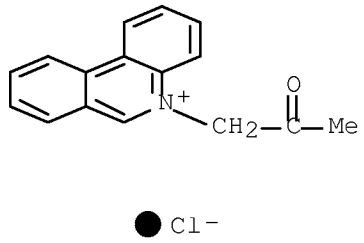
CAS Registry Number
853953-32-9 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 9-fluoro- (CA INDEX NAME)



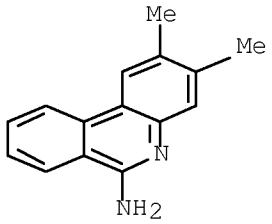
CAS Registry Number
943454-04-4 CAPLUS

Chemical or Trade Name
Phenanthridinium, 5-(2-oxopropyl)-, chloride (1:1) (CA INDEX NAME)



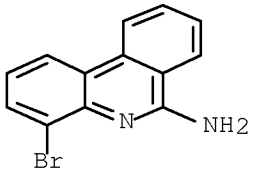
CAS Registry Number
946147-03-1 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-dimethyl- (CA INDEX NAME)



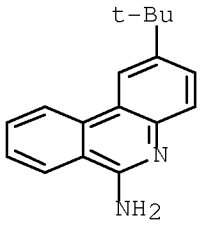
CAS Registry Number
946147-06-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 4-bromo- (CA INDEX NAME)



CAS Registry Number
946147-22-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(1,1-dimethylethyl)- (CA INDEX NAME)



CAS Registry Number
946147-24-6 CAPLUS

Chemical or Trade Name
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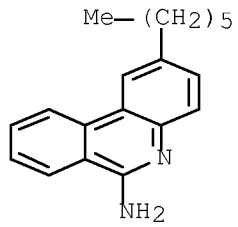
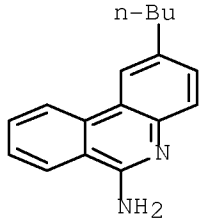


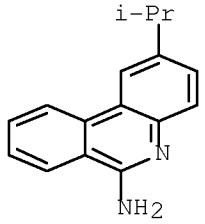
CAS Registry Number
946147-28-0 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-butyl- (CA INDEX NAME)



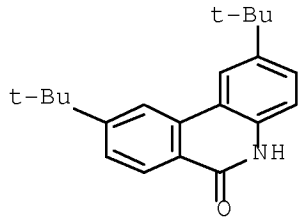
CAS Registry Number
946147-30-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(1-methylethyl)- (CA INDEX NAME)



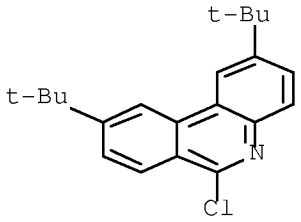
CAS Registry Number
946147-35-9 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



CAS Registry Number
946147-36-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



CAS Registry Number
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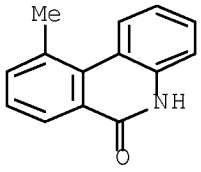
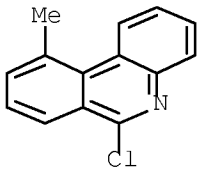
Chemical or Trade Name
6(5H)-Phenanthridinone, 10-methyl- (CA INDEX NAME)



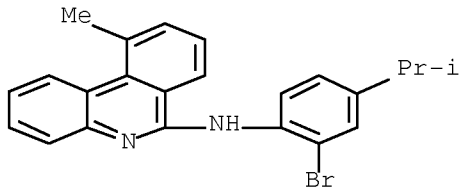
CAS Registry Number
946147-41-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-10-methyl- (CA INDEX NAME)



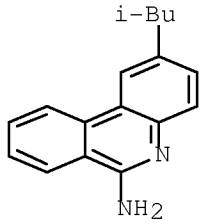
CAS Registry Number
946147-42-8 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-[2-bromo-4-(1-methylethyl)phenyl]-10-methyl- (CA INDEX NAME)



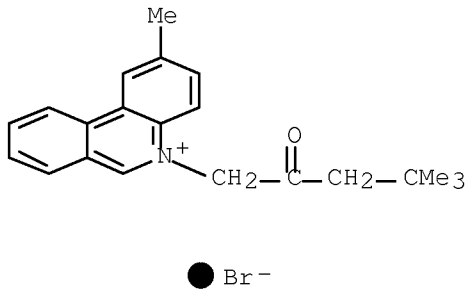
CAS Registry Number
1089734-99-5 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number
1089735-46-5 CAPLUS

Chemical or Trade Name
Phenanthridinium, 5-(4,4-dimethyl-2-oxopentyl)-2-methyl-, bromide (1:1)
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L8 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2008:1457097 CAPLUS Full-text

Document Number
150:43959

Title
Blue phosphorescent iridium complexes and **light-emitting** devices using them

Author/Inventor
Knowles, David B.; Lin, Chun; MacKenzie, Peter B.; Tsai, Jui-Yi; Walters, Robert W.; Beers, Scott; Brown, Cory S.; Yeager, Walter; Barron, Edward

Patent Assignee/Corporate Source
Universal Display Corporation, USA

Source
U.S. Pat. Appl. Publ., 130 pp., Cont.-in-part of U.S. Ser. No. 704,585. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

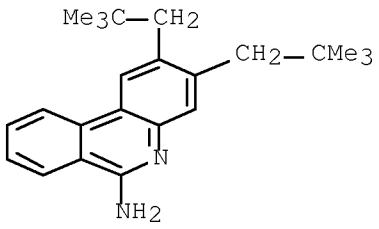
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080297033	A1	20081204	US 2008-44605	20080307
US 20070190359	A1	20070816	US 2007-704585	20070209
EP 1981898	A2	20081022	EP 2007-750408	20070209
JP 2009526071	T	20090716	JP 2008-554393	20070209
WO 2008156879	A1	20081224	WO 2008-US56297	20080307
IN 2008DN06353	A	20081024	IN 2008-DN6353	20080721
KR 2008098489	A	20081110	KR 2008-719429	20080807
CN 101415718	A	20090422	CN 2007-80008533	20080910

Abstract
Iridium complexes are described by the general formula I (n = 1, 2, or 3; R1a, R1b, R1c, R1d, R1e, R1f, R1g, R1h, and R1i = independently selected hydrocarbyl, heteroatom substituted hydrocarbyl, cyano, fluoro, OR2a, SR2a, NR2aR2b, BR2aR2b, or SiR2aR2bR2c, where R2a-c = independently selected hydrocarbyl or heteroatom substituted hydrocarbyl, and where any two of R1a-i and R2a-c may be linked to form a saturated or unsatd., aromatic or non-aromatic ring; and X-Y = an ancillary ligand). Organic **light emitting** devices comprising selected complexes are also described.

Hit Structure

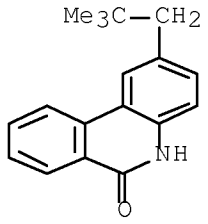
CAS Registry Number
1089735-06-7 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-bis(2,2-dimethylpropyl)- (CA INDEX NAME)



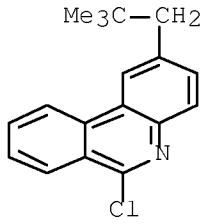
CAS Registry Number
1089735-09-0 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 2-(2,2-dimethylpropyl)- (CA INDEX NAME)



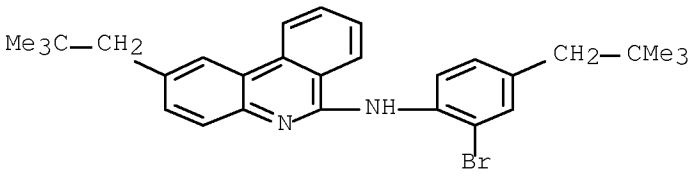
CAS Registry Number
1089735-10-3 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-2-(2,2-dimethylpropyl)- (CA INDEX NAME)



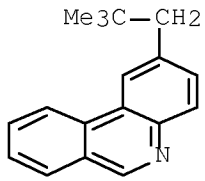
CAS Registry Number
1089735-11-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-[2-bromo-4-(2,2-dimethylpropyl)phenyl]-2-(2,2-dimethylpropyl)- (CA INDEX NAME)



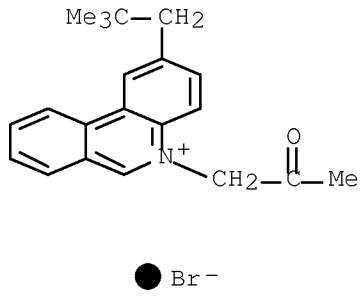
CAS Registry Number
1089735-29-4 CAPLUS

Chemical or Trade Name
Phenanthridine, 2-(2,2-dimethylpropyl)- (CA INDEX NAME)



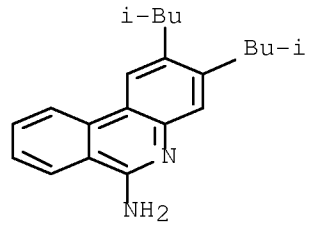
CAS Registry Number
1089735-30-7 CAPLUS

Chemical or Trade Name
Phenanthridinium, 2-(2,2-dimethylpropyl)-5-(2-oxopropyl)-, bromide (1:1)
(CA INDEX NAME)



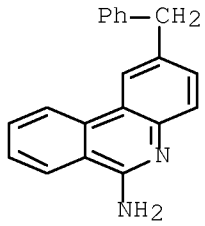
CAS Registry Number
1089735-36-3 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-bis(2-methylpropyl)- (CA INDEX NAME)



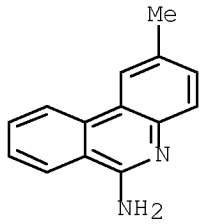
CAS Registry Number
1089735-38-5 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(phenylmethyl)- (CA INDEX NAME)



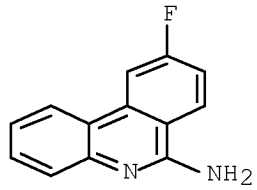
CAS Registry Number
855829-20-8 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-methyl- (CA INDEX NAME)



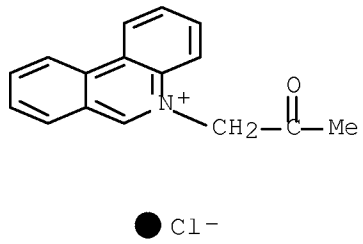
CAS Registry Number
853953-32-9 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 9-fluoro- (CA INDEX NAME)



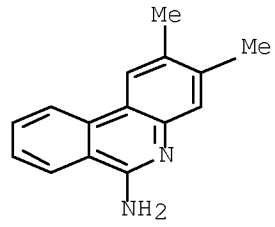
CAS Registry Number
943454-04-4 CAPLUS

Chemical or Trade Name
Phenanthridinium, 5-(2-oxopropyl)-, chloride (1:1) (CA INDEX NAME)



CAS Registry Number
946147-03-1 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-dimethyl- (CA INDEX NAME)



CAS Registry Number
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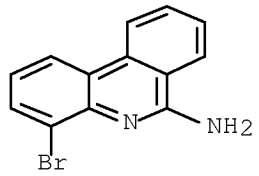
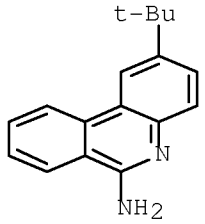
Chemical or Trade Name
6-Phenanthridinamine, 4-bromo- (CA INDEX NAME)



CAS Registry Number
946147-22-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(1,1-dimethylethyl)- (CA INDEX NAME)



CAS Registry Number
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Chemical or Trade Name
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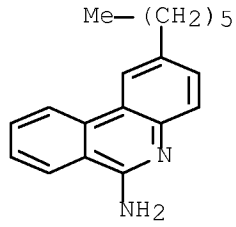

CAS Registry Number
946147-28-0 CAPLUS

Chemical or Trade Name
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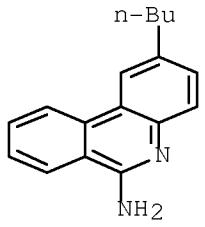

CAS Registry Number
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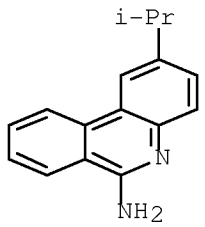
Chemical or Trade Name
6-Phenanthridinamine, 2-(1-methylethyl)- (CA INDEX NAME)



CAS Registry Number
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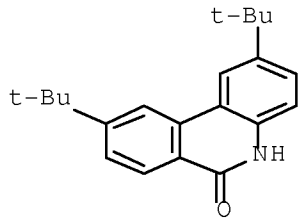
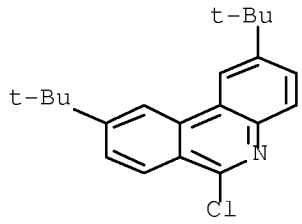
Chemical or Trade Name
6(5H)-Phenanthridinone, 2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



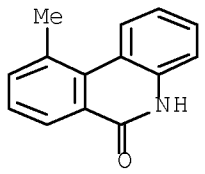
CAS Registry Number
946147-36-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



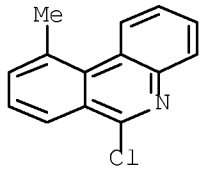
CAS Registry Number
946147-40-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 10-methyl- (CA INDEX NAME)



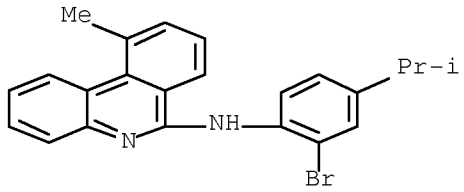
CAS Registry Number
946147-41-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-10-methyl- (CA INDEX NAME)



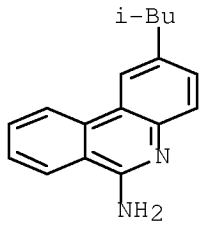
CAS Registry Number
946147-42-8 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-[2-bromo-4-(1-methylethyl)phenyl]-10-methyl- (CA INDEX NAME)



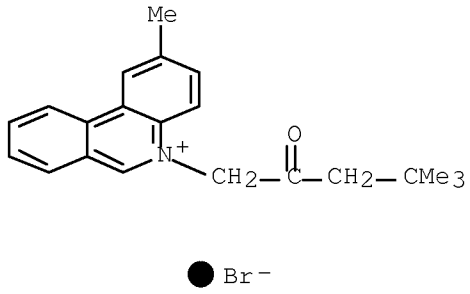
CAS Registry Number
1089734-99-5 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number
1089735-46-5 CAPLUS

Chemical or Trade Name
Phenanthridinium, 5-(4,4-dimethyl-2-oxopentyl)-2-methyl-, bromide (1:1) (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

. L8 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2008:1397717 CAPLUS Full-text

Document Number
149:577440

Title
Polymeric **light emitting** materials for thin films, **light emitting** devices, plane light sources, display devices, organic transistors and solar cells

Author/Inventor
Noguchi, Takanobu; Suzuki, Tomoyuki

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 76pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008140057	A1	20081120	WO 2008-JP58664	20080509
JP 2008308671	A	20081225	JP 2008-123576	20080509
EP 2154174	A1	20100217	EP 2008-752547	20080509

Abstract
Title polymer compds. comprise a repeating unit (I) and/or a repeating unit (II), wherein Rf1, Rf2, Rg1, Rg2 = Ph or substituent and Rd1, Rd2, Re1, Re2 = H or substituent. Thus, 0.617 g 2,7-dibromo-9,9-dioctyl-9H-fluorene and 0.400 g 2,2'-[1-pentyl-1,2-ethenediyl]bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] were polymerized in the presence of dichlorobis(triphenylphosphine)palladium and Aliquat 336 to give a copolymer Mw 6.4 + 103, fluorescence at 462 nm, and relative fluorescence intensity 5.1.

Hit Structure

CAS Registry Number
1082773-87-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

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CRN 1082741-59-0
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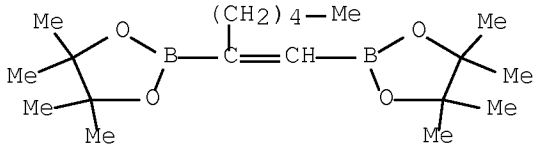

CM
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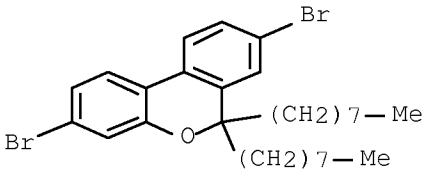
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
1082773-89-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

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CRN 916669-80-2
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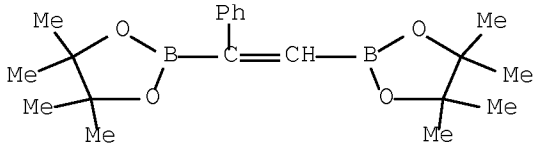

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CRN 688013-66-3

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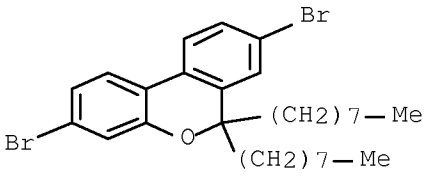

CAS Registry Number
1082773-91-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]-, polymer with 2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

CM
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CRN 916669-80-2
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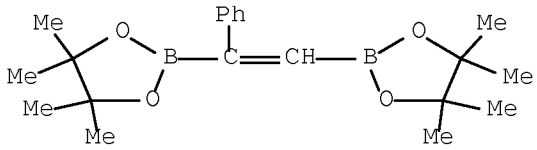

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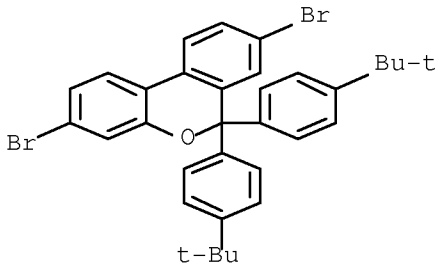

CAS Registry Number
1082773-93-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 2,7-dibromo-9,9-dioctyl-9H-fluorene and 2,2'-(1-phenyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

CM
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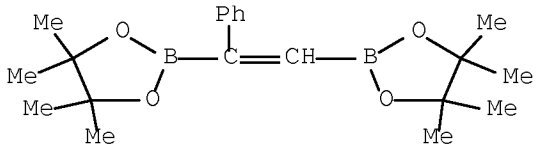
CRN 916669-80-2
CMF C20 H30 B2 O4



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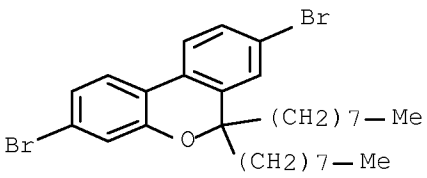

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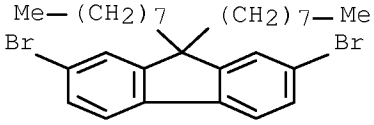
CMF C29 H40 Br2



CAS Registry Number
1082773-95-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
2,7-dibromo-9,9-bis[4-(hexyloxy)phenyl]-9H-fluorene and
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane]
(CA INDEX NAME)

CM
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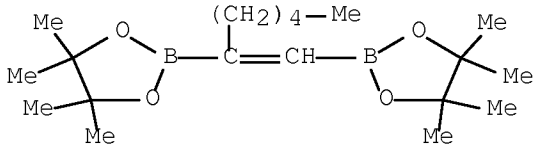
CRN 1082741-59-0
CMF C19 H36 B2 O4



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CRN 690994-34-4
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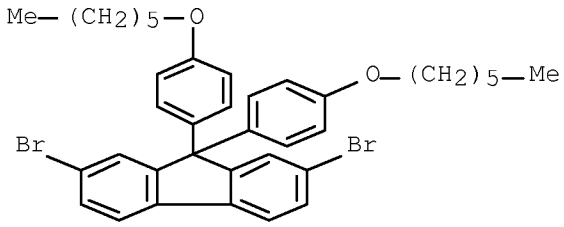

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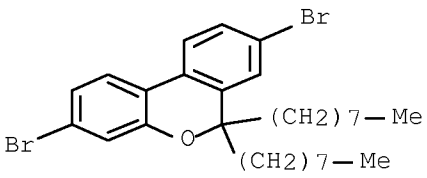
CRN 688013-66-3
CMF C29 H40 Br2 O



CAS Registry Number
1082773-97-4 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N1,N4-bis(4-bromophenyl)-N1,N4-bis(4-butylphenyl)-,
polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran,

2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis[1,3,2-dioxaborolane] and
2,2'-(1-pentyl-1,2-ethenediyl)bis[4,4,5,5-tetramethyl-1,3,2-
dioxaborolane], block (CA INDEX NAME)

CM
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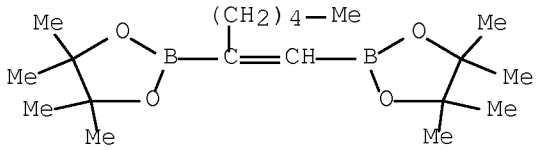
CRN 1082741-59-0
CMF C19 H36 B2 O4



CM
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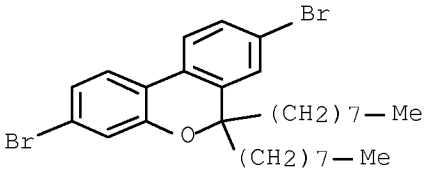
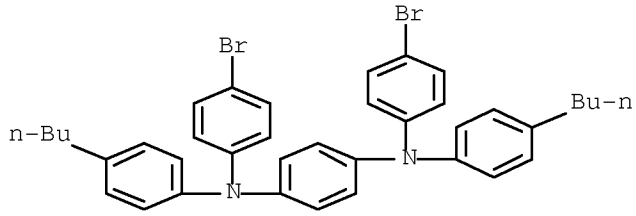


CM
3

CRN 372200-89-0
CMF C38 H38 Br2 N2



CM
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CRN 210347-49-2
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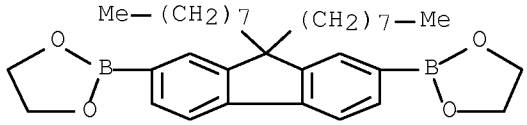


L8 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2008:1238872 CAPLUS Full-text

Document Number
149:520961

Title
Phosphaphenanthrene-based organic **light- emitting** compound and organic **electroluminescent** element using the compound

Author/Inventor
Jung, Gwang Chun; Cho, Hyeon Nam; Park, Ik Gyu; Yoo, Ji Hun; Hyun, Ae Ran; Jung, Yun Ho

Patent Assignee/Corporate Source
Inktech Co., Ltd., S. Korea

Source
Repub. Korean Kongkae Taeho Kongbo, 30pp. CODEN: KRXXA7

Document Type
Patent

Language
Korean

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2008091036	A	20081009	KR 2008-31843	20080404
WO 2008123722	A1	20081016	WO 2008-KR1943	20080405
EP 2134808	A1	20091223	EP 2008-741193	20080405

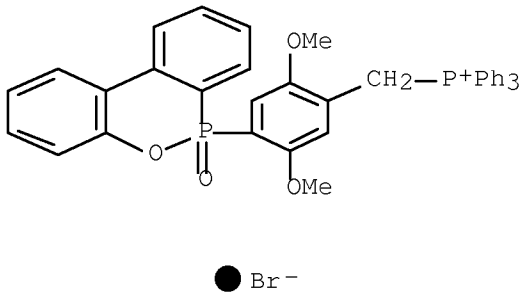
Abstract

The title phosphaphenanthrene-based organic **light-emitting** compound is shown with chemical formula I (L1 = a chemical bond, C6-30 arylene, etc.; L2 = C6-30 arylene, 2-30 heteroarylene, etc.; R1 = C1-22 alkyl, C6-30 aryl, C2-30 heteroaryl, halogen, etc.; R2-R9 = hydrogen, C1-22 alkyl, C1-22 alkyl containing oxygen, nitrogen, or sulfur, C1-22 alkoxyl, C3-22 cycloalkyl, etc.). Thus, e.g., an **OLED** based on phosphaphenanthrene II (preparation given) exhibited the following characteristics: turn-on 3.4 V, E.Q.E. 1.56, 2.06 cd/A, 1.13 lm/W, CIE (0.16, 0.16), and ELmax 450 nm.

Hit Structure

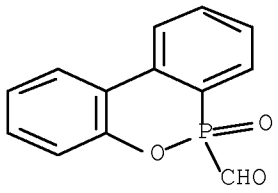
CAS Registry Number
1073501-36-6 CAPLUS

Chemical or Trade Name
Phosphonium, [[2,5-dimethoxy-4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]methyl]triphenyl-, bromide (1:1) (CA INDEX NAME)



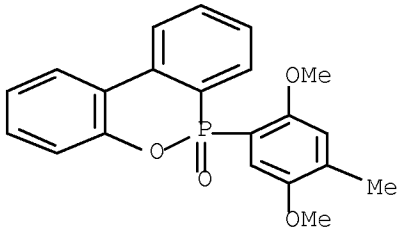
CAS Registry Number
1073501-45-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin-6-carboxaldehyde, 6-oxide (CA INDEX NAME)



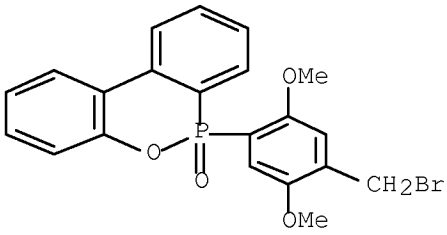
CAS Registry Number
1073501-34-4 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(2,5-dimethoxy-4-methylphenyl)-, 6-oxide (CA INDEX NAME)



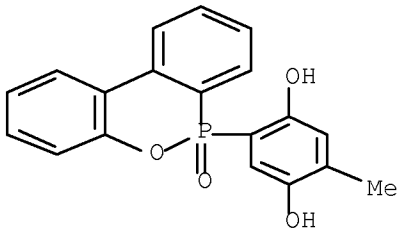
CAS Registry Number
1073501-35-5 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-(bromomethyl)-2,5-dimethoxyphenyl]-, 6-oxide (CA INDEX NAME)



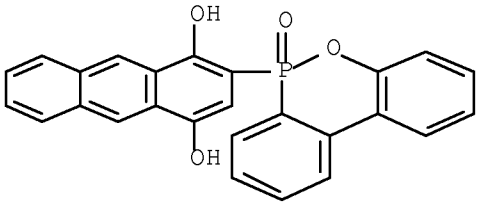
CAS Registry Number
213741-48-1 CAPLUS

Chemical or Trade Name
1,4-Benzenediol, 2-methyl-5-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)- (CA INDEX NAME)



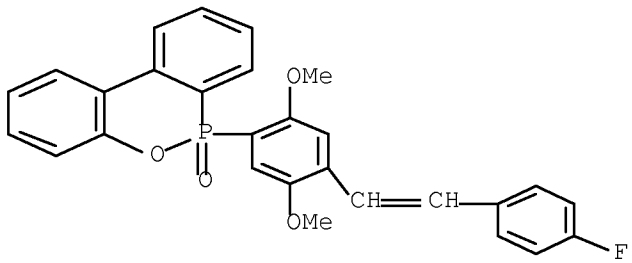
CAS Registry Number
1073501-47-9 CAPLUS

Chemical or Trade Name
1,4-Anthracenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)- (CA INDEX NAME)



CAS Registry Number
1073501-37-7 CAPLUS

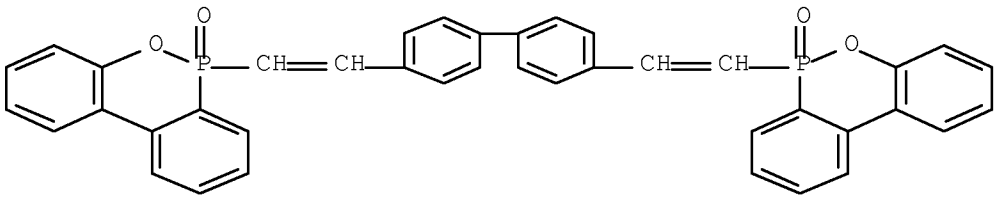
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-[2-(4-fluorophenyl)ethenyl]-2,5-dimethoxyphenyl]-, 6-oxide (CA INDEX NAME)



CAS Registry Number
1073501-07-1 CAPLUS

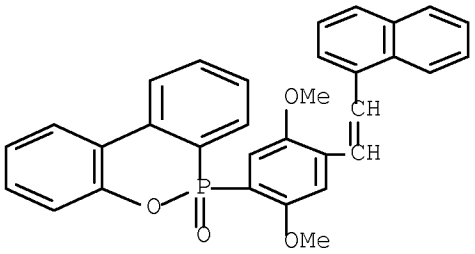
Chemical or Trade Name

6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



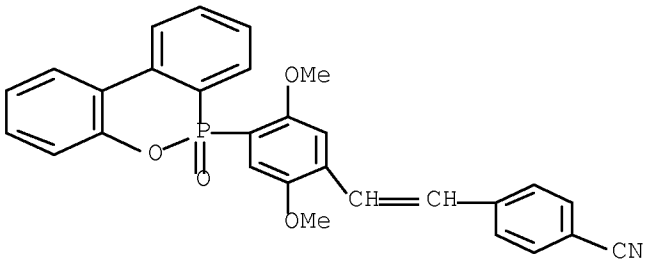
CAS Registry Number
1073501-38-8 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[2,5-dimethoxy-4-[2-(1-naphthalenyl)ethenyl]phenyl]-, 6-oxide (CA INDEX NAME)



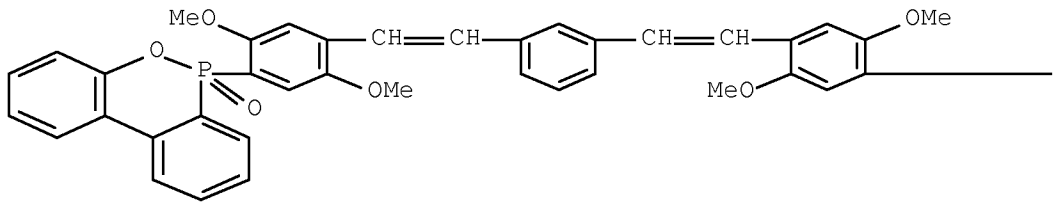
CAS Registry Number
1073501-39-9 CAPLUS

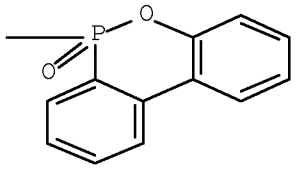
Chemical or Trade Name
Benzonitrile, 4-[2-[2,5-dimethoxy-4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]ethenyl]- (CA INDEX NAME)



CAS Registry Number
1073501-40-2 CAPLUS

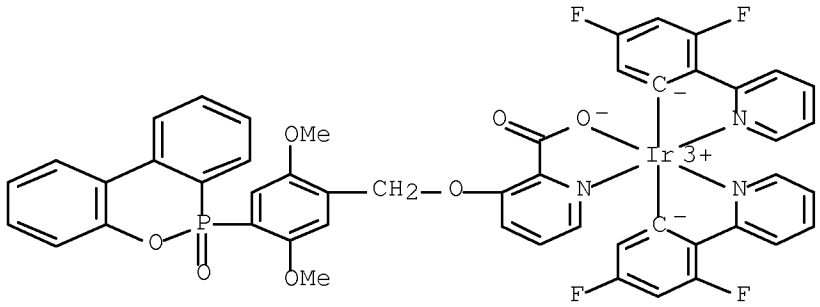
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[1,3-phenylenebis[2,1-ethenediyl(2,5-dimethoxy-4,1-phenylene)]]bis-, 6,6'-dioxide (CA INDEX NAME)





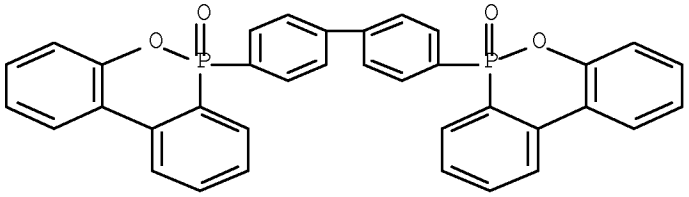
CAS Registry Number
1073501-41-3 CAPLUS

Chemical or Trade Name
Iridium, [3-[[2,5-dimethoxy-4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]methoxy]-2-pyridinecarboxylato-κN1,κO2]bis[3,5-difluoro-2-(2-pyridinyl-κN)phenyl-κC]- (CA INDEX NAME)



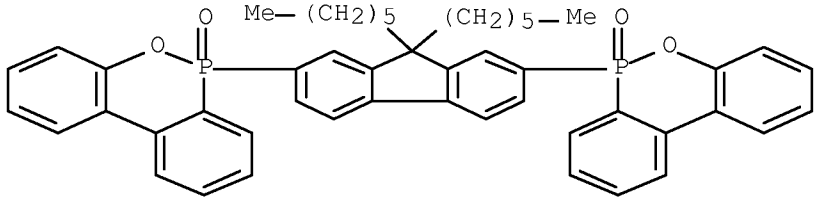
CAS Registry Number
1073501-42-4 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[1,1'-biphenyl]-4,4'-diylbis-, 6,6'-dioxide (CA INDEX NAME)



CAS Registry Number
1073501-43-5 CAPLUS

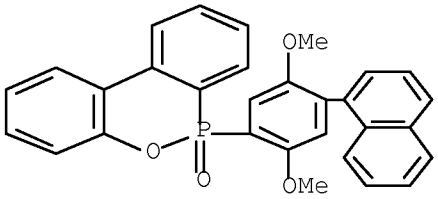
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, 6,6'-dioxide (CA INDEX NAME)



CAS Registry Number
1073501-46-8 CAPLUS

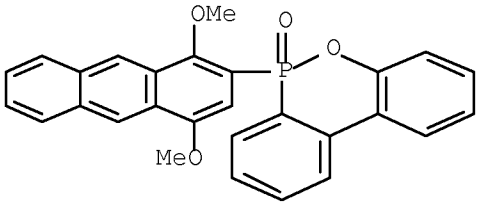
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[2,5-dimethoxy-4-(1-

naphthalenyl)phenyl]-, 6-oxide (CA INDEX NAME)



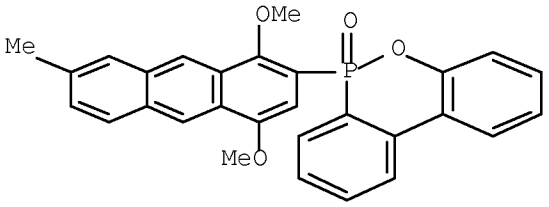
CAS Registry Number
1073501-48-0 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(1,4-dimethoxy-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



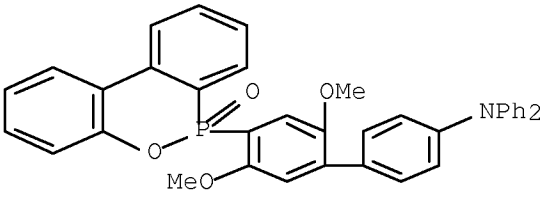
CAS Registry Number
1073501-49-1 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(1,4-dimethoxy-7-methyl-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



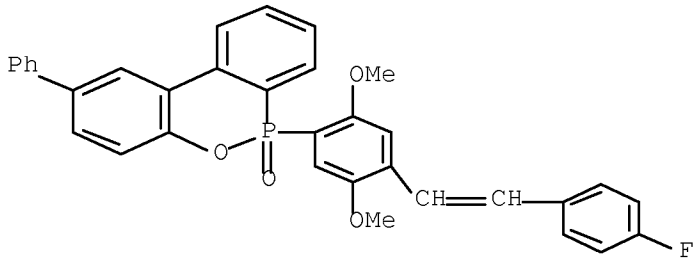
CAS Registry Number
1073501-50-4 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-4-amine, 2',5'-dimethoxy-4'-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-N,N-diphenyl- (CA INDEX NAME)



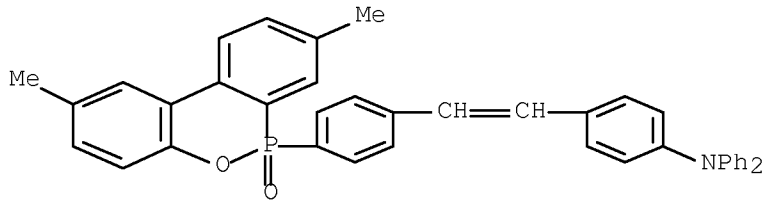
CAS Registry Number
1073500-92-1 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-[2-(4-fluorophenyl)ethenyl]-2,5-dimethoxyphenyl]-2-phenyl-, 6-oxide (CA INDEX NAME)



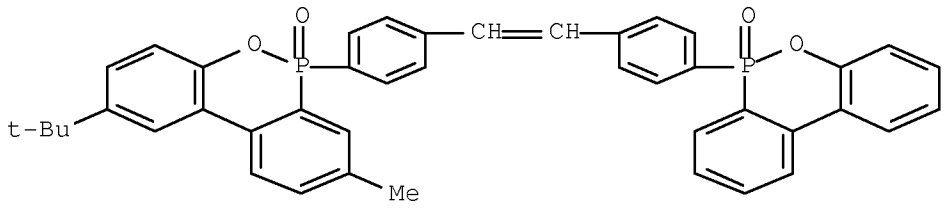
CAS Registry Number
1073500-93-2 CAPLUS

Chemical or Trade Name
Benzenamine, 4-[2-[4-(2,8-dimethyl-6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]ethenyl]-N,N-diphenyl- (CA INDEX NAME)



CAS Registry Number
1073500-94-3 CAPLUS

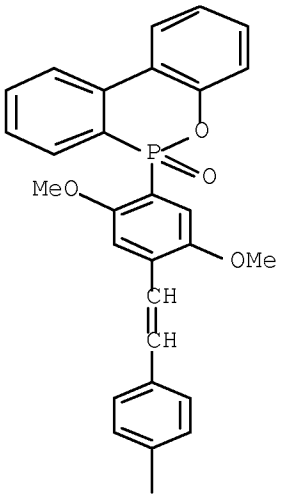
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 2-(1,1-dimethylethyl)-8-methyl-6-[4-[2-[4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]ethenyl]phenyl]-, 6-oxide (CA INDEX NAME)



CAS Registry Number
1073500-95-4 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-[4-[2-[2,5-dimethoxy-4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]ethenyl]phenyl]- (CA INDEX NAME)

PAGE 1-A



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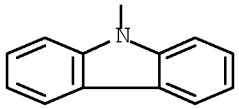
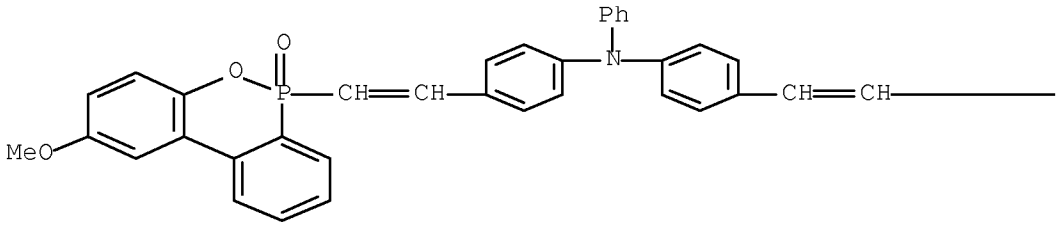


CAS Registry Number
1073500-96-5 CAPLUS

Chemical or Trade Name
Benzenamine, 4-[2-(2-methoxy-6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)ethenyl]-N-[4-[2-(2-methoxy-6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)ethenyl]phenyl]-N-phenyl- (CA INDEX NAME)

PAGE 1-A



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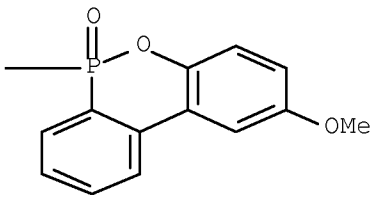
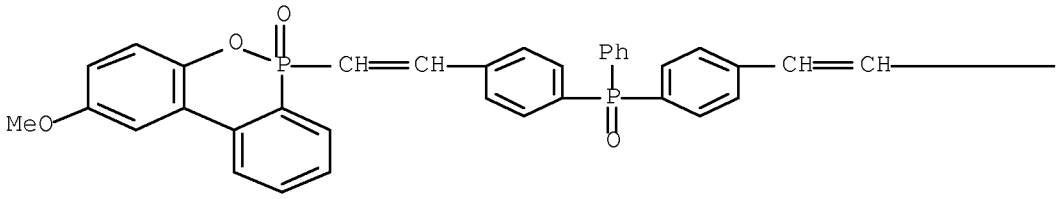


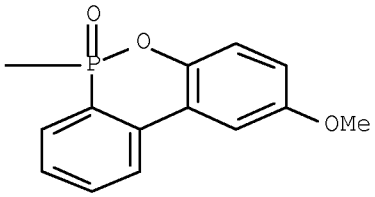
CAS Registry Number
1073500-97-6 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[(phenylphosphinylidene)bis(4,1-phenylene-2,1-ethenediyl)]bis[2-methoxy-, 6,6'-dioxide (CA INDEX NAME)

PAGE 1-A

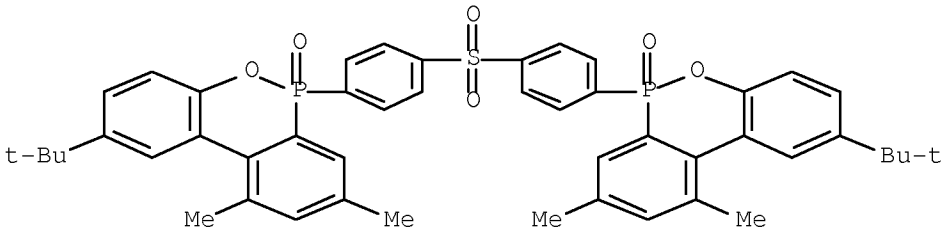


PAGE 1-B



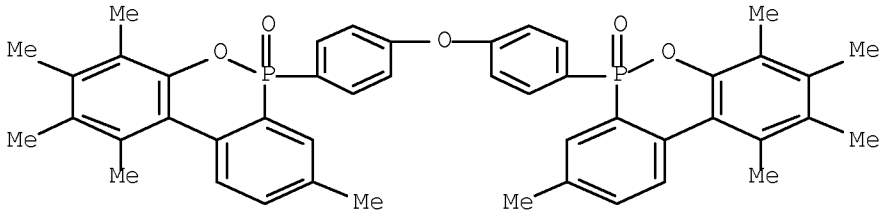
CAS Registry Number
1073500-98-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(sulfonyldi-4,1-phenylene)bis[2-(1,1-dimethylethyl)-8,10-dimethyl-, 6,6'-dioxide (CA INDEX NAME)



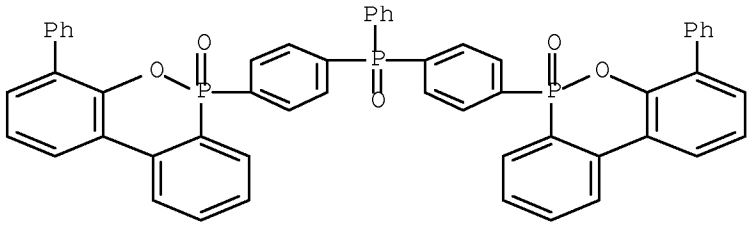
CAS Registry Number
1073500-99-8 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(oxydi-4,1-phenylene)bis[1,2,3,4,8-pentamethyl-, 6,6'-dioxide (CA INDEX NAME)



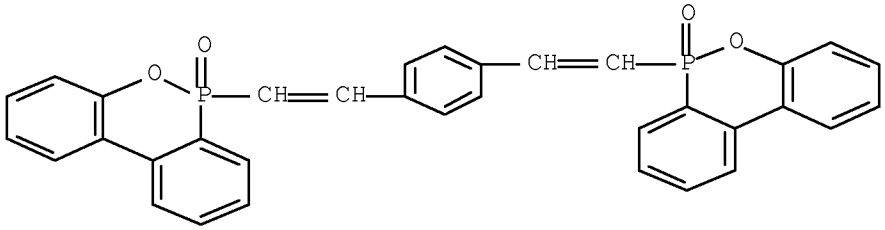
CAS Registry Number
1073501-00-4 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[(phenylphosphinylidene)di-4,1-phenylene]bis[4-phenyl-, 6,6'-dioxide (CA INDEX NAME)



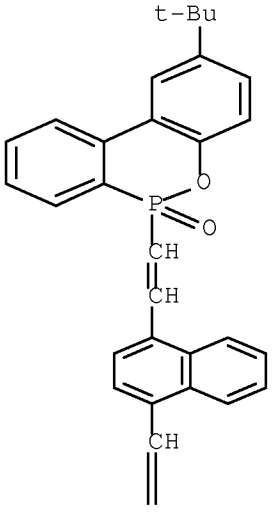
CAS Registry Number
1073501-01-5 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(1,4-phenylenedi-2,1-ethenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



CAS Registry Number
1073501-02-6 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(1,4-naphthalenediyldi-2,1-ethenediyl)bis[2-(1,1-dimethylethyl)-, 6,6'-dioxide (CA INDEX NAME)



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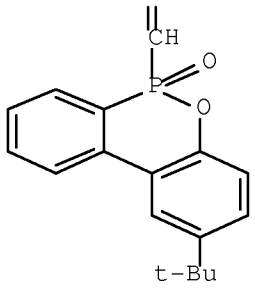
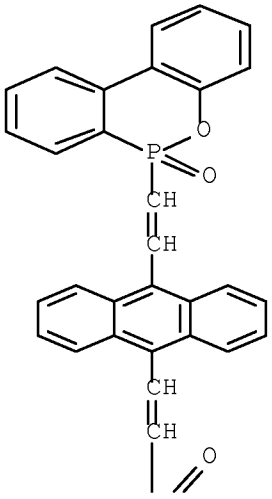


CAS Registry Number
1073501-03-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(9,10-anthracenediyldi-2,1-ethenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)

PAGE 1-A



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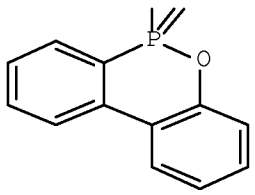
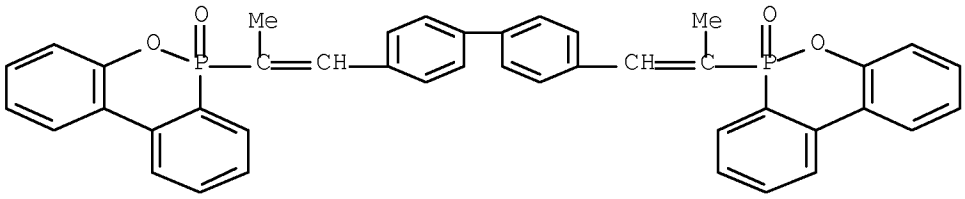


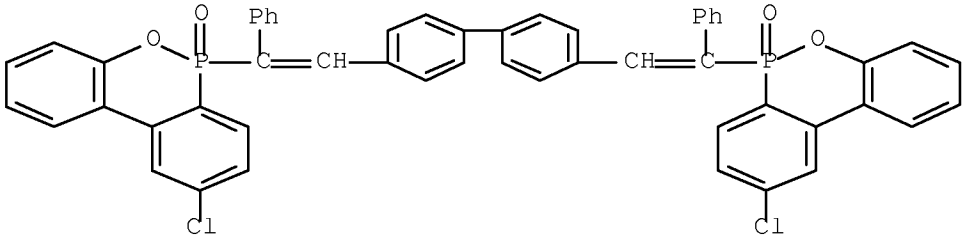
CAS Registry Number
1073501-04-8 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[[1,1'-biphenyl]-4,4'-diylbis(1-methyl-2,1-ethenediyl)]bis-, 6,6'-dioxide (CA INDEX NAME)



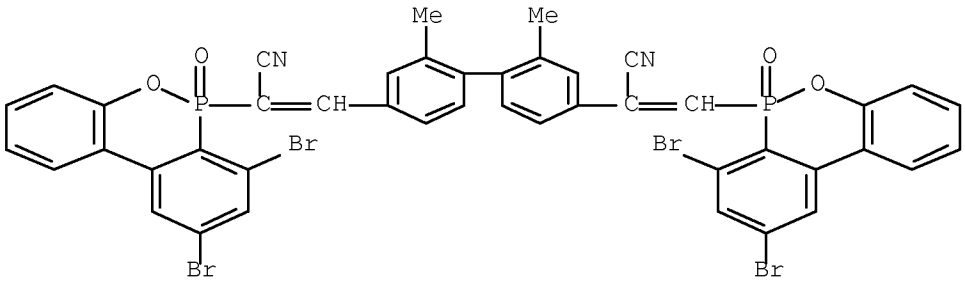
CAS Registry Number
1073501-05-9 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[[1,1'-biphenyl]-4,4'-diylbis(1-phenyl-2,1-ethenediyl)]bis[9-chloro-, 6,6'-dioxide (CA INDEX NAME)



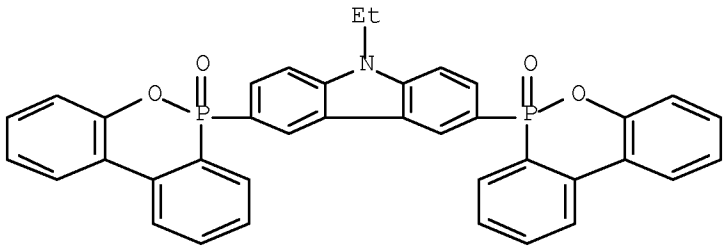
CAS Registry Number
1073501-06-0 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin-6-acetonitrile, 7,9-dibromo-α-[[4'-[1-cyano-2-(7,9-dibromo-6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)ethenyl]-2,2'-dimethyl[1,1'-biphenyl]-4-yl]methylene]-, 6-oxide (CA INDEX NAME)



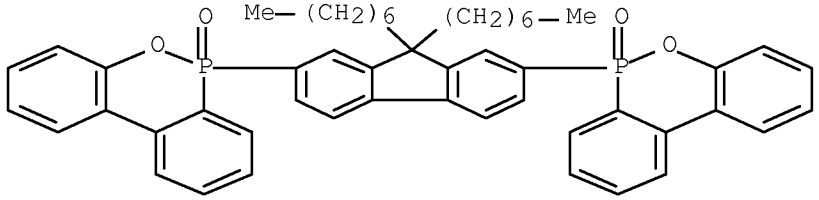
CAS Registry Number
1073501-08-2 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9-ethyl-3,6-bis(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)- (CA INDEX NAME)



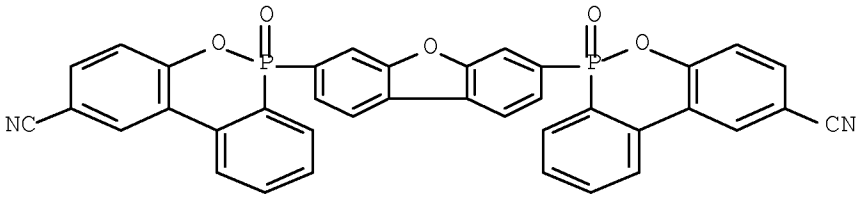
CAS Registry Number
1073501-09-3 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(9,9-diheptyl-9H-fluorene-2,7-diyl)bis-, 6,6'-dioxide (CA INDEX NAME)



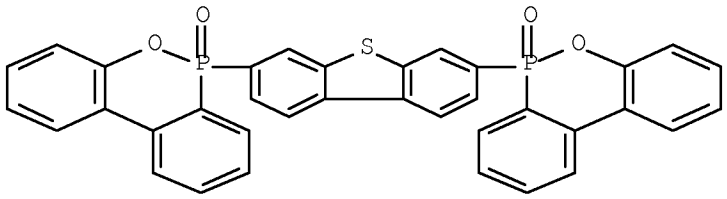
CAS Registry Number
1073501-10-6 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin-2-carbonitrile, 6,6'-(3,7-dibenzofurandiyl)bis-, 6,6'-dioxide (CA INDEX NAME)



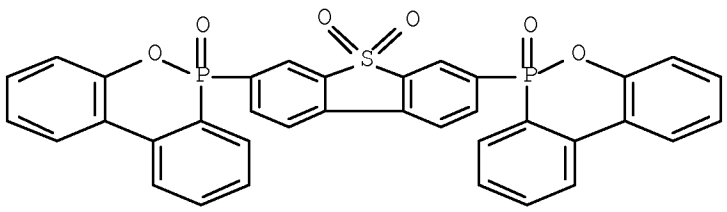
CAS Registry Number
1073501-11-7 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(3,7-dibenzothiophenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



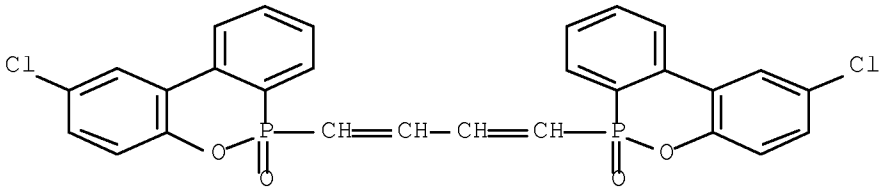
CAS Registry Number
1073501-12-8 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(5,5-dioxido-3,7-dibenzothiophenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



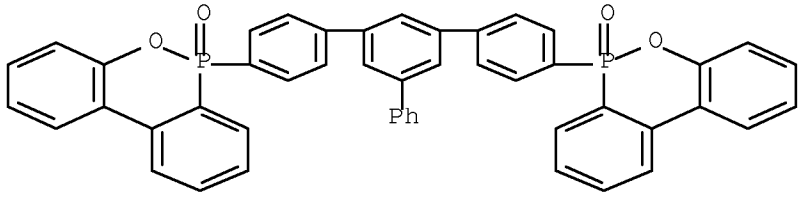
CAS Registry Number
1073501-13-9 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(1,3-butadiene-1,4-diyl)bis[2-chloro-, 6,6'-dioxide (CA INDEX NAME)



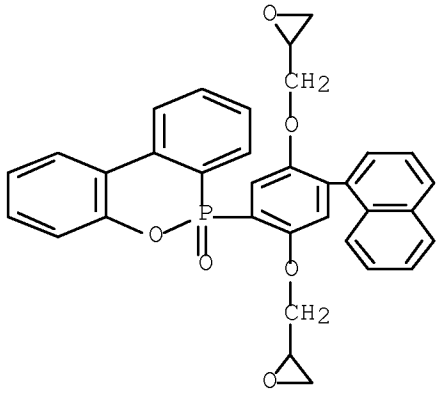
CAS Registry Number
1073501-14-0 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(5'-phenyl[1,1':3',1''-terphenyl]-4,4''-diyl)bis-, 6,6'-dioxide (CA INDEX NAME)



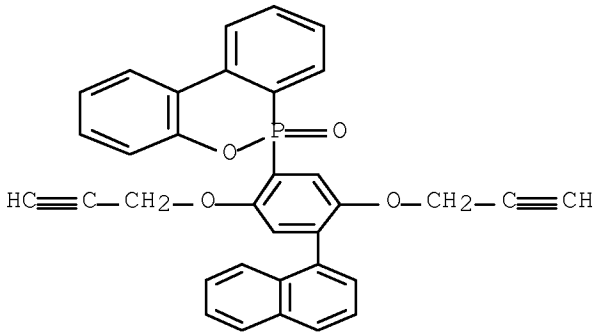
CAS Registry Number
1073501-15-1 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-(1-naphthalenyl)-2,5-bis(2-oxiranylmethoxy)phenyl]-, 6-oxide (CA INDEX NAME)



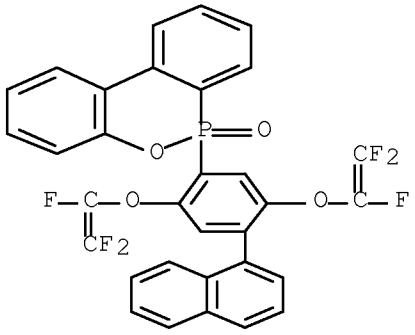
CAS Registry Number
1073501-16-2 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-(1-naphthalenyl)-2,5-bis(2-propyn-1-yloxy)phenyl]-, 6-oxide (CA INDEX NAME)



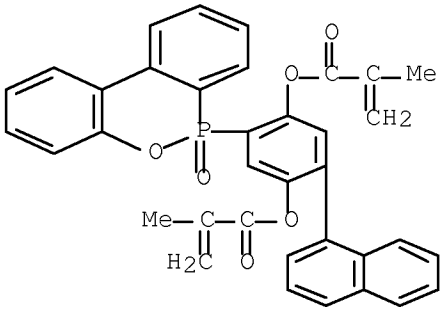
CAS Registry Number
1073501-17-3 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[4-(1-naphthalenyl)-2,5-bis[(1,2,2-trifluoroethenyl)oxy]phenyl]-, 6-oxide (CA INDEX NAME)



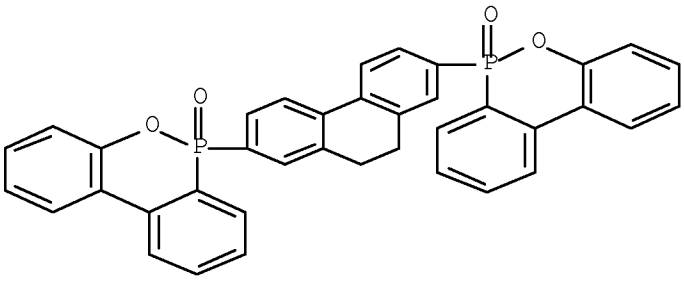
CAS Registry Number
1073501-18-4 CAPLUS

Chemical or Trade Name
2-Propenoic acid, 2-methyl-, 1,1'-[2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-5-(1-naphthalenyl)-1,4-phenylene] ester (CA INDEX NAME)



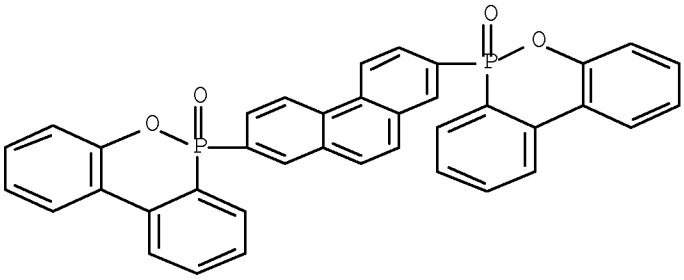
CAS Registry Number
1073501-19-5 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(9,10-dihydro-2,7-phenanthrenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



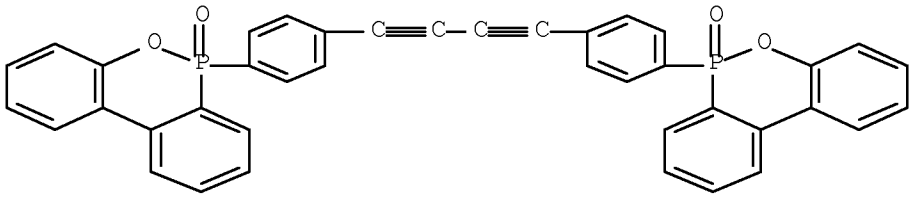
CAS Registry Number
1073501-20-8 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(2,7-phenanthrenediyl)bis-, 6,6'-dioxide (CA INDEX NAME)



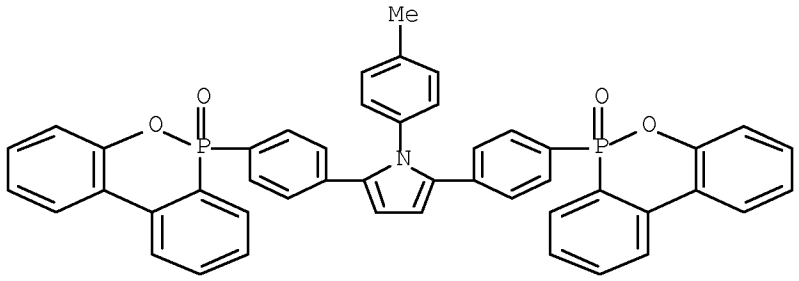
CAS Registry Number
1073501-21-9 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-(1,3-butadiyne-1,4-diyldi-4,1-phenylene)bis-, 6,6'-dioxide (CA INDEX NAME)



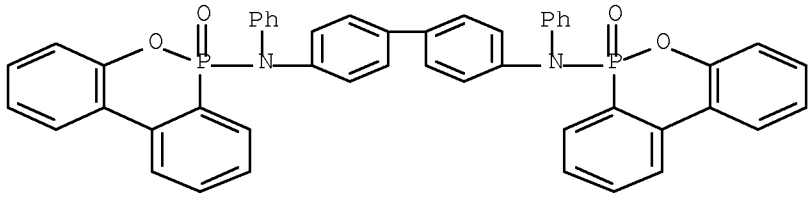
CAS Registry Number
1073501-22-0 CAPLUS

Chemical or Trade Name
1H-Pyrrole, 1-(4-methylphenyl)-2,5-bis[4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]- (CA INDEX NAME)



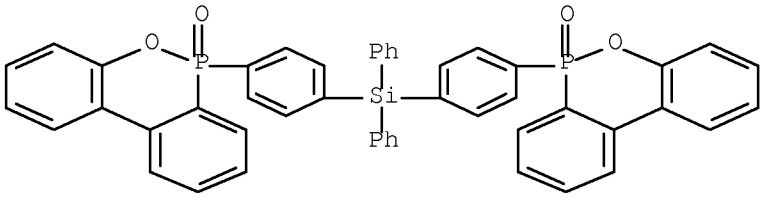
CAS Registry Number
1073501-23-1 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-4,4'-diamine, N4,N4'-bis(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-N4,N4'-diphenyl- (CA INDEX NAME)



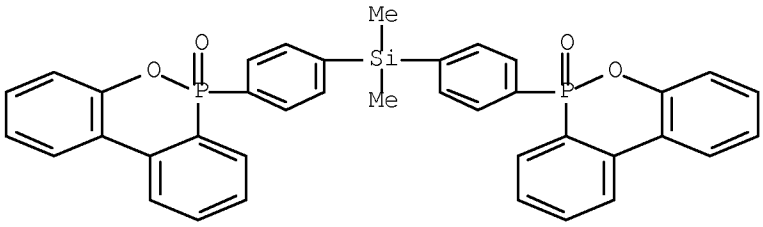
CAS Registry Number
1073501-24-2 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[(diphenylsilylene)di-4,1-phenylene]bis-, 6,6'-dioxide (CA INDEX NAME)



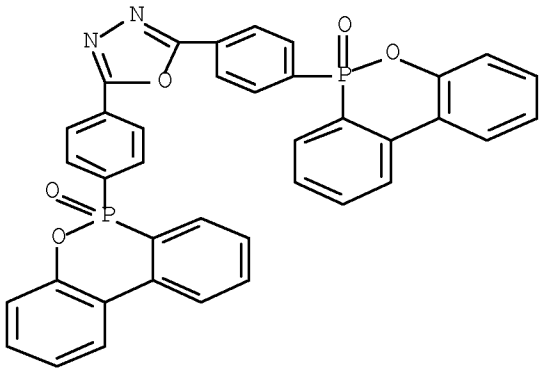
CAS Registry Number
1073501-25-3 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6,6'-[(dimethylsilylene)di-4,1-phenylene]bis-, 6,6'-dioxide (CA INDEX NAME)



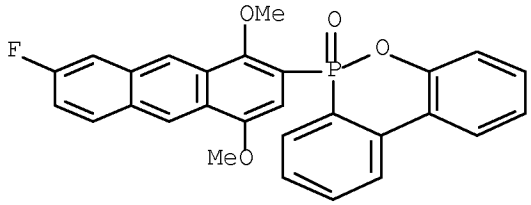
CAS Registry Number
1073501-26-4 CAPLUS

Chemical or Trade Name
1,3,4-Oxadiazole, 2,5-bis[4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)phenyl]- (CA INDEX NAME)



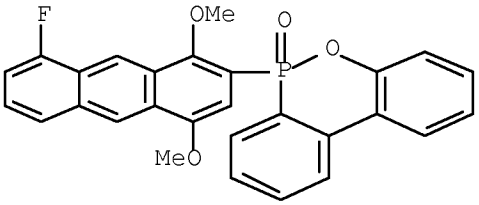
CAS Registry Number
1073501-27-5 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(7-fluoro-1,4-dimethoxy-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



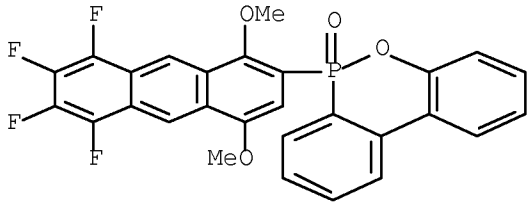
CAS Registry Number
1073501-28-6 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(8-fluoro-1,4-dimethoxy-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



CAS Registry Number
1073501-29-7 CAPLUS

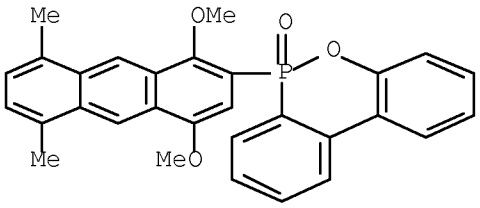
Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(5,6,7,8-tetrafluoro-1,4-dimethoxy-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



CAS Registry Number
1073501-30-0 CAPLUS

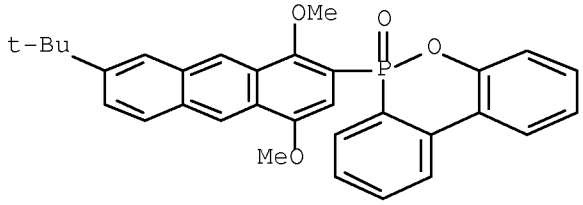
Chemical or Trade Name

6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(1,4-dimethoxy-5,8-dimethyl-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



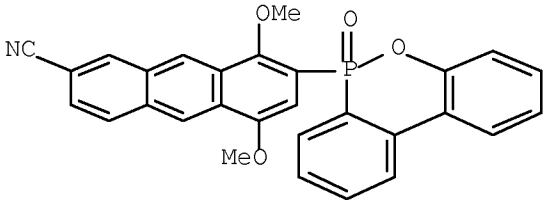
CAS Registry Number
1073501-31-1 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-[7-(1,1-dimethylethyl)-1,4-dimethoxy-2-anthracenyl]-, 6-oxide (CA INDEX NAME)



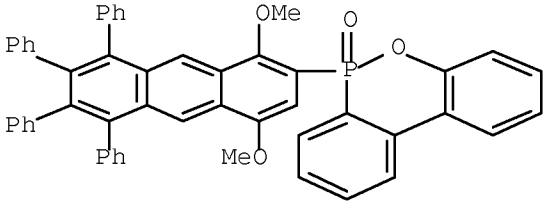
CAS Registry Number
1073501-32-2 CAPLUS

Chemical or Trade Name
2-Anthracenecarbonitrile, 5,8-dimethoxy-7-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)- (CA INDEX NAME)



CAS Registry Number
1073501-33-3 CAPLUS

Chemical or Trade Name
6H-Dibenz[c,e][1,2]oxaphosphorin, 6-(1,4-dimethoxy-5,6,7,8-tetraphenyl-2-anthracenyl)-, 6-oxide (CA INDEX NAME)



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150:251586

Title
Aggregation-induced emission enhancement of phosphaphenanthrene containing P-phenylene dibenzoate and application to detection of transition metals

Author/Inventor
Qian, Li-Jun; Tong, Bin; Zhi, Jun-Ge; Yang, Fan; Shen, Jin-Bo; Shi, Jian-Bing; Dong, Yu-Ping

Patent Assignee/Corporate Source
College of Materials Science & Engineering, Beijing Institute of Technology, Beijing, 100081, Peop. Rep. China

Source
Huaxue Xuebao (2008), 66(9), 1134-1138 CODEN: HHHPA4; ISSN: 0567-7351

Document Type

Journal

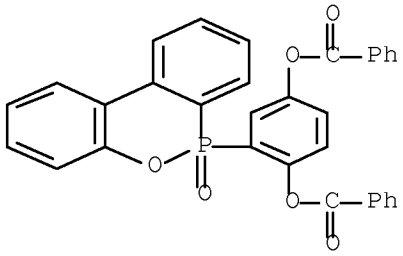
Language
Chinese

Abstract
Fluorescence of the organic **light-emitting** compds. is often quenched when the luminophors are fabricated into solid thin films, which has greatly limited their practical applications. It is important to design and synthesize the novel organic luminophors with excellent light emission property in the solid state. When 6-oxa-5-oxo-5-[2,5-di(benzoyloxyphenyl)]-5-phosphaphenanthrene (OP) aggregates to a certain degree, the fluorescence strength of OP increases proportionably, which shows obvious aggregation-induced emission enhancement (AIEE) property. AIEE property disappeared if OP concentration was lower than 1 + 10-6 mol/L-1. Hg2+, Fe2+, and Fe3+ ions (1 + 10-4 mol/L-1) can efficiently quench the emission intensity of OP (2 + 10-5 mol/L-1) during the aggregation state formation, with the quenching efficiency to OP fluorescence being 26%, 34%, 74%, resp. and higher than those by Pb2+, Zn2+, Cd2+, Co2+, Mn2+, Cu2+, Ni2+, and Ag2+ ions. This novel phenomenon enables the applications to chemosensor for detecting of transition metal ions.

Hit Structure

CAS Registry Number
1048639-18-4 CAPLUS

Chemical or Trade Name
1,4-Benzenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, 1,4-dibenzoate (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2008:471740 CAPLUS Full-text

Document Number
148:437137

Title
Manufacturing method of organic **electroluminescent** device and organic **electroluminescent** device

Author/Inventor
Ishii, Takashi; Ito, Hiroki

Patent Assignee/Corporate Source
Seiko Epson Corp., Japan

Source
Jpn. Kokai Tokkyo Koho, 10pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

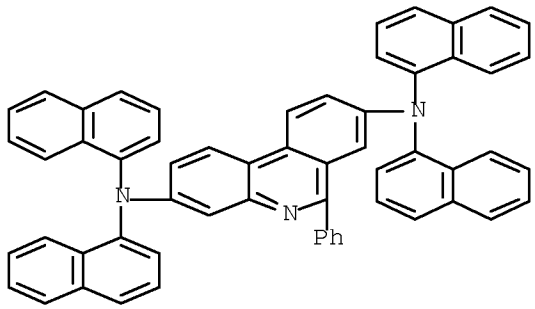
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008091570	A	20080417	JP 2006-269923	20060929

Abstract
The invention refers to a manufacturing method of an organic **electroluminescent** device comprising a hole injection layer containing a conductive polymer having an acidic dopant, and an organic luminescent layer between a pair of electrodes, wherein a hole transport layer and a heat resistant layer having glass transition temperature > 150, or no glass transition are placed between the hole injection layer and the luminescent layer.

Hit Structure

CAS Registry Number
1018330-78-3 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N3,N8,N8-tetra-1-naphthalenyl-6-phenyl- (CA INDEX NAME)



. L8 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2008:154957 CAPLUS Full-text

Document Number
148:403653

Title
Synthesis and characterization of polyketanils with 3,8-diamino-6-phenylphenanthridine moieties exhibiting **light emitting** properties: Molecular and supramolecular engineering concept

Author/Inventor
Iwan, Agnieszka; Mazurak, Zbigniew; Kaczmarczyk, Bozena; Jarzabek, Bozena; Sek, Danuta

Patent Assignee/Corporate Source
Centre of Polymer and Carbon Materials, Polish Academy of Sciences, Zabrze, 41-819, Pol.

Source
Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (2008), 69A(2), 291-303 CODEN: SAMCAS; ISSN: 1386-1425

Document Type
Journal

Language
English

Abstract
Relationship between structures and properties of new conjugated polyketanils (PKs) with special architectures, synthesized from three diketones, i.e. p-dibenzoylbenzene, dibenzyl, trans-1,2-dibenzoylethylene and 3,8-diamino-6-phenylphenanthridine, was investigated. The photoluminescence (PL) of green, yellow and red emitting light polymers and their blend was studied. These included the effects of excitation wavelength, concentration and film thickness on the PL. Photoluminescence properties of the PKs before and after protonation with 10-Camphorsulfonic acid (CSA) were tested. The structure formation of (PKs)1(CSA)2 complexes are discussed on the basis of FTIR spectroscopy.

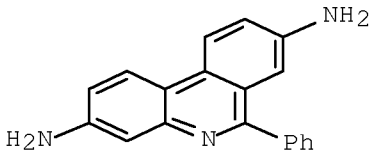
Hit Structure

CAS Registry Number
1015842-46-2 CAPLUS

Chemical or Trade Name
Methanone, 1,1'-(1,4-phenylene)bis[1-phenyl-, polymer with
6-phenyl-3,8-phenanthridinediamine (CA INDEX NAME)

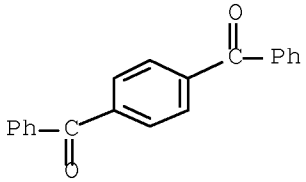
CM
1

CRN 52009-64-0
CMF C19 H15 N3



CM
2

CRN 3016-97-5
CMF C20 H14 O2

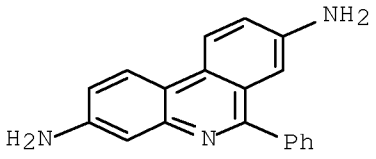


CAS Registry Number
1015842-48-4 CAPLUS

Chemical or Trade Name
2-Butene-1,4-dione, 1,4-diphenyl-, (2E)-, polymer with
6-phenyl-3,8-phenanthridinediamine (CA INDEX NAME)

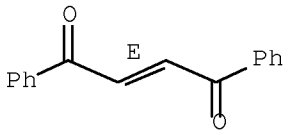
CM
1

CRN 52009-64-0
CMF C19 H15 N3



CM
2

CRN 959-28-4
CMF C16 H12 O2

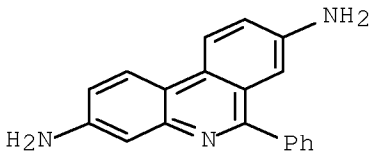


CAS Registry Number
1015842-47-3 CAPLUS

Chemical or Trade Name
1,2-Ethanedione, 1,2-diphenyl-, polymer with
6-phenyl-3,8-phenanthridinediamine (CA INDEX NAME)

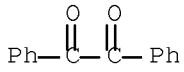
CM
1

CRN 52009-64-0
CMF C19 H15 N3



CM
2

CRN 134-81-6
CMF C14 H10 O2



. L8 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:907209 CAPLUS Full-text

Document Number
147:287842

Title
Metal complexes of cyclometallated imidazo[1,2-f]phenanthridine and diimidazo[1,2-a:1',2'-c]quinazoline ligands and isoelectronic and benzannulated analogs thereof

Author/Inventor
Knowles, David B.; Lin, Chun; Mackenzie, Peter Borden; Tsai, Jui-Yi; Walters, Robert W.; Beers, Scott A.; Brown, Cory S.; Yeager, Walter H.

Patent Assignee/Corporate Source
Universal Display Corp., USA

Source
U.S. Pat. Appl. Publ., 101 pp. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

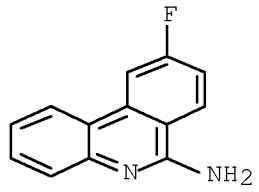
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070190359	A1	20070816	US 2007-704585	20070209
WO 2007095118	A2	20070823	WO 2007-US3569	20070209
WO 2007095118	A3	20071206		
EP 1981898	A2	20081022	EP 2007-750408	20070209
JP 2009526071	T	20090716	JP 2008-554393	20070209
US 20080297033	A1	20081204	US 2008-44605	20080307
IN 2008DN06353	A	20081024	IN 2008-DN6353	20080721
KR 2008098489	A	20081110	KR 2008-719429	20080807
CN 101415718	A	20090422	CN 2007-80008533	20080910

Abstract
Phosphorescent metal complexes comprising cyclometallated imidazo[1,2-f]phenanthridine and diimidazo[1,2-a:1',2'-c]quinazoline ligands, or isoelectronic or benzannulated analogs thereof, are described. Organic **light-emitting** diode devices comprising these compds. are also described.

Hit Structure

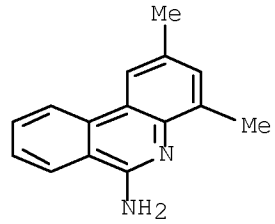
CAS Registry Number
853953-32-9 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 9-fluoro- (CA INDEX NAME)



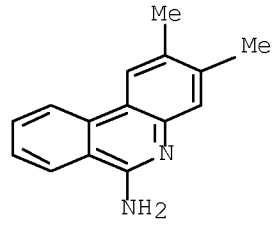
CAS Registry Number
855830-85-2 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,4-dimethyl- (CA INDEX NAME)



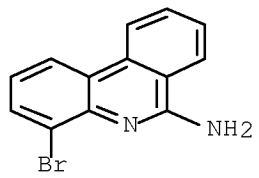
CAS Registry Number
946147-03-1 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2,3-dimethyl- (CA INDEX NAME)



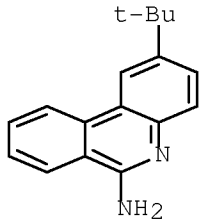
CAS Registry Number
946147-06-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 4-bromo- (CA INDEX NAME)



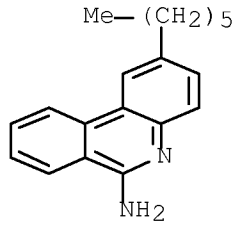
CAS Registry Number
946147-22-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(1,1-dimethylethyl)- (CA INDEX NAME)



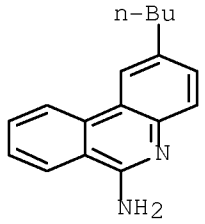
CAS Registry Number
946147-24-6 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-hexyl- (CA INDEX NAME)



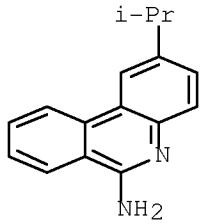
CAS Registry Number
946147-28-0 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-butyl- (CA INDEX NAME)



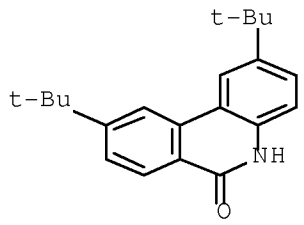
CAS Registry Number
946147-30-4 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, 2-(1-methylethyl)- (CA INDEX NAME)



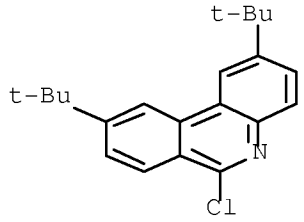
CAS Registry Number
946147-35-9 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



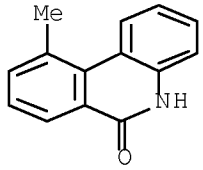
CAS Registry Number
946147-36-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-2,9-bis(1,1-dimethylethyl)- (CA INDEX NAME)



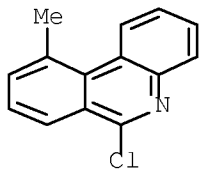
CAS Registry Number
946147-40-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 10-methyl- (CA INDEX NAME)



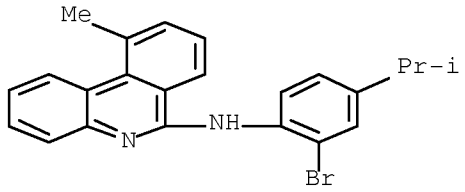
CAS Registry Number
946147-41-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-chloro-10-methyl- (CA INDEX NAME)



CAS Registry Number
946147-42-8 CAPLUS

Chemical or Trade Name
6-Phenanthridinamine, N-[2-bromo-4-(1-methylethyl)phenyl]-10-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

L8 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:727375 CAPLUS Full-text

Document Number
147:128636

Title
Organic **electroluminescent** devices, displays and Ir complex-derived macromolecular materials

Author/Inventor
Otsubo, Akihiro; Takahashi, Yoshiaki

Patent Assignee/Corporate Source
Showa Denko K. K., Japan

Source
Jpn. Kokai Tokkyo Koho, 35pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

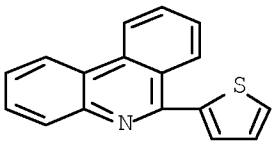
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007169474	A	20070705	JP 2005-369456	20051222

Abstract
The materials, providing devices showing high-purity red emission and long service life, have repeating unit derived from Ir complex I [R1-R8 = H, halo, nitro, cyano, etc.; Q1 = C, N, S; Z1 = atomic group forming 5- or 6-membered aromatic (heterocyclic) ring; L = polymerizable group-containing bidentate ligand of monovalent anion]. Also claimed are surface-emitting light sources and displays employing the materials in organic polymer layers.

Hit Structure

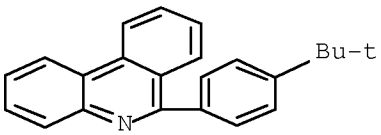
CAS Registry Number
452070-83-6 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-(2-thienyl)- (CA INDEX NAME)



CAS Registry Number
942607-94-5 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:464123 CAPLUS Full-text

Document Number
146:471844

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Liao, Liang-Sheng; Spindler, Jeffrey P.; Klubek, Kevin P.

Patent Assignee/Corporate Source
Eastman Kodak Co., USA

Source
U.S. Pat. Appl. Publ., 70 pp., Cont.-in-part of U.S. Ser. No. 259,290, abandoned. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070092759	A1	20070426	US 2006-501336	20060809
WO 2007050334	A1	20070503	WO 2006-US40303	20061012
EP 1941562	A1	20080709	EP 2006-825999	20061012
JP 2009514222	T	20090402	JP 2008-537758	20061012
US 20070207347	A1	20070906	US 2007-796953	20070430
CN 101292371	A	20081022	CN 2006-80039365	20080422
KR 2008063780	A	20080707	KR 2008-709767	20080424
US 20100019671	A1	20100128	US 2009-573175	20091005

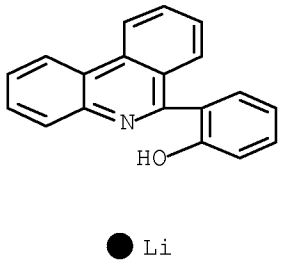
Abstract

An **OLED** device comprises a cathode, a **light emitting** layer and an anode, in that order, and, has located between the cathode and the **light emitting** layer, a further layer containing a cyclometallated complex represented by I, wherein: Z and the dashed arc represent 2 or 3 atoms and the bonds necessary to complete a 5- or 6-membered ring with M; each A represents H or a substituent and each B represents an independently selected substituent on the Z atoms, provided that ≥2 substituents may combine to form a fused ring or a fused ring system; j is 0-3 and k is 1 or 2; M represents a Group IA, IIA, IIIA and IIB element of the periodic table; m and n are independently selected integers selected to provide a neutral charge on the complex; and provided that the complex does not contain the 8-hydroxyquinolate ligand. Such devices exhibit reduce drive voltage while maintaining good luminance.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

. L8 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:461712 CAPLUS Full-text

Document Number
146:471838

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Rajeswaran, Manju; Hatwar, Tukaram K.; Andrievsky, Natasha

Patent Assignee/Corporate Source
Eastman Kodak Company, USA

Source
U.S. Pat. Appl. Publ., 48pp. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

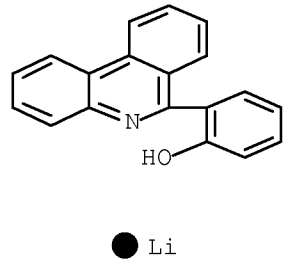
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070092756	A1	20070426	US 2005-259586	20051026
WO 2007050301	A2	20070503	WO 2006-US39851	20061012
WO 2007050301	A3	20080912		
EP 1941563	A2	20080709	EP 2006-816782	20061012
JP 2009514215	T	20090402	JP 2008-537745	20061012

Abstract
An **OLED** device comprises a cathode, a **light emitting** layer and an anode, in that order, and, having located between the cathode and the **light emitting** layer, a further layer containing; (a) 10 volume% or more of a carbocyclic fused ring aromatic compound, and (b) a cyclometallated complex represented by I wherein: Z and the dashed arc represent 2 or 3 atoms and the bonds necessary to complete a 5- or 6-membered ring with M; each A represents H or a substituent and each B represents an independently selected substituent on the Z atoms, provided that ≥2 substituents may combine to form a fused ring or a fused ring system; j is 0-3 and k is 1 or 2; M represents a Group IA, IIA, IIIA and IIB element of the Periodic Table; and m and n are independently selected integers selected to provide a neutral charge on the complex; and provided that the complex does not contain the 8-hydroxyquinolate ligand. Such devices exhibit reduce drive voltage while maintaining good luminance.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



. L8 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:461663 CAPLUS Full-text

Document Number
146:471837

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Andrievsky, Natasha; Slusarek, Wojciech K.

Patent Assignee/Corporate Source
Eastman Kodak Company, USA

Source
U.S. Pat. Appl. Publ., 48pp. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

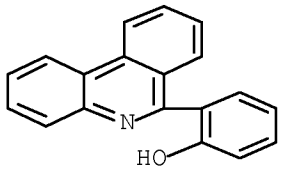
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070092755	A1	20070426	US 2005-258740	20051026
WO 2007050303	A1	20070503	WO 2006-US39854	20061012
EP 1940995	A1	20080709	EP 2006-816783	20061012
JP 2009514217	T	20090402	JP 2008-537747	20061012

Abstract
An **OLED** device comprises a cathode, a **light emitting** layer and an anode, in that order, and comprises; (i) a further layer located between the cathode and the **light emitting** layer, containing (a) 10 volume% or more of a carbocyclic fused ring aromatic compound, and (b) at least 1 salt or complex of a Group IA, IIA, IIIA and IIB element of the periodic table, and (ii) an addnl. layer, located between the anode and the **light emitting** layer, containing a compound of formula I, wherein: each R independently represents H or an independently selected substituent, at least 1 R representing an electron-withdrawing substituent having a Hammett's sigma para value of at least 0.3. Such devices exhibit reduce drive voltage while maintaining good luminance.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



● Li

L8 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:461650 CAPLUS Full-text

Document Number
146:471836

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Andrievsky, Natasha

Patent Assignee/Corporate Source
Eastman Kodak Company, USA

Source
U.S. Pat. Appl. Publ., 51pp. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

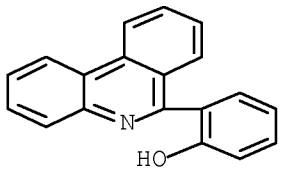
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070092754	A1	20070426	US 2005-258719	20051026
WO 2007050302	A1	20070503	WO 2006-US39853	20061012
EP 1940997	A1	20080709	EP 2006-825811	20061012
JP 2009514216	T	20090402	JP 2008-537746	20061012

Abstract
An **OLED** device comprises a cathode, a **light emitting** layer and an anode, in that order, and comprising; (i) in the **light-emitting** layer at least 1 **light emitting** compound selected from amine containing monostyryl, amine containing distyryl, amine containing tristyryl and amine containing tetrastyryl compds., and (ii) a further layer located between the cathode and the **light emitting** layer, containing (a) 10-volume % or more of a carbocyclic fused ring aromatic compound, and (b) at least 1 salt or complex of a Group IA, IIA, IIIA or IIB element of the periodic table. Such devices exhibit reduce drive voltage while maintaining good luminance.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



● Li

L8 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2007:461638 CAPLUS Full-text

Document Number
146:471835

Title
Organic element for low voltage **electroluminescent** devices

Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Andrievsky, Natasha

Patent Assignee/Corporate Source
Eastman Kodak Company, USA

Source
U.S. Pat. Appl. Publ., 48pp. CODEN: USXXCO

Document Type
Patent

Language
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070092753	A1	20070426	US 2005-258671	20051026
WO 2007050331	A1	20070503	WO 2006-US40236	20061012
EP 1941564	A1	20080709	EP 2006-825972	20061012

JP 2009514221	T	20090402	JP 2008-537757	20061012

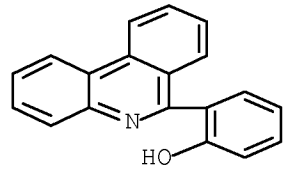
Abstract

An **OLED** device comprises a cathode, a **light emitting** layer and an anode, in that order, wherein (i) the **light-emitting** layer comprises up to 10 volume% of a **light emitting** compound and at least 1 anthracene host compound of formula I: wherein W1-W10 independently represents H or an independently selected substituent, and (ii) a further layer located between the cathode and the **light emitting** layer, contains (a) 10-volume % or more of an anthracene compound of formula I and (b) at least 1 salt or complex of an element selected from Group IA, IIA, IIIA and IIB of the periodic table. Such devices exhibit reduced drive voltage while maintaining good luminance.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

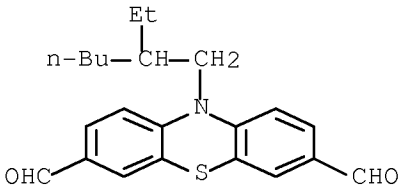
. L8 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2006:1344343 CAPLUS Full-text
Document Number
147:277990
Title
Synthesis and **electroluminescent** properties of conjugated copolymer containing phenothiazine and phenanthridine unit
Author/Inventor
Han, Yoon Soo; Kim, Sang Dae; Kwon, Younghwan; Choi, Kyu-Han; Park, Lee Soon
Patent Assignee/Corporate Source
Daegu Gyeongbuk Institute of Science and Technology, Taegu, S. Korea
Source
Molecular Crystals and Liquid Crystals (2006), 459, 119-128 CODEN: MCLCD8; ISSN: 1542-1406
Document Type
Journal
Language
English
Abstract
The conjugated copolymer, poly[N-(2-ethylhexyl)phenothiazine-alt-6-Ph phenanthridine] [poly(PZ-PTI)], with azomethine linkages, was synthesized by a Schiff-base reaction. This new conjugated copolymer exhibited improved solubility in common organic solvents due to the presence of alkyl side chains on phenothiazine rings as well as polar azomethine groups in the main chains. Single-layered PLED made with poly(PZ-PTI) as an emitting layer exhibited EL (emission) at 572 nm (yellow; color coordinates of x = 0.51, y = 0.48). Double-layered PLED fabricated with the synthesized polymer as an emitting layer and Alq3 as an electron transporting layer exhibited enhanced EL emission and efficiency compared to that of single-layered PLED. With increasing thickness of the Alq3 layer in double-layered PLED the emission peak gradually shifted to the single-layered PLED made with only Alq3 as an emitting layer, confirming good hole transporting behavior of the synthesized conjugated copolymer.
Hit Structure

CAS Registry Number
946492-26-8 CAPLUS

Chemical or Trade Name
10H-Phenothiazine-3,7-dicarboxaldehyde, 10-(2-ethylhexyl)-, polymer with 6-phenyl-3,8-phenanthridinediamine (CA INDEX NAME)

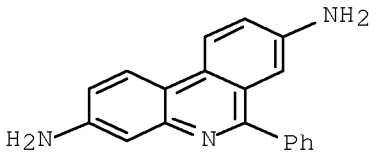
CM
1

CRN 403610-12-8
CMF C22 H25 N O2 S



CM
2

CRN 52009-64-0
CMF C19 H15 N3



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

. L8 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2006:1339043 CAPLUS Full-text
Document Number
146:71617
Title
Organic element for low voltage **electroluminescent** devices employing a mixed layer of a polycyclic aromatic compound and a metal compound
Author/Inventor
Begley, William J.; Hatwar, Tukaram K.; Rajeswaran, Manju; Andrievsky, Natasha
Patent Assignee/Corporate Source
Eastman Kodak Company, USA
Source
U.S. Pat. Appl. Publ., 48pp., Cont.-in-part of U.S. Ser. No. 156,302. CODEN: USXXCO
Document Type
Patent
Language
English
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060286405	A1	20061221	US 2005-259472	20051026
US 20060286402	A1	20061221	US 2005-156302	20050617
WO 2006138075	A2	20061228	WO 2006-US21358	20060602
WO 2006138075	A3	20070816		
EP 1891692	A2	20080227	EP 2006-771886	20060602
EP 1891692	B1	20081015		

JP 2008547196	T	20081225	JP 2008-516910	20060602
KR 2008025371	A	20080320	KR 2007-729281	20071214
CN 101199063	A	20080611	CN 2006-80021616	20071217

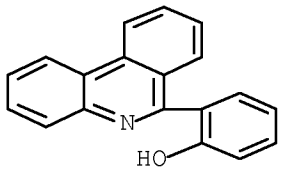
Abstract

Organic **light emitting** diode (**OLED**) devices with reduced drive voltage are described which comprise a cathode, a **light emitting** layer and an anode, in that order, and, has located between the cathode and the **light emitting** layer, a layer containing (a) more than 10 volume % of a carbocyclic fused ring aromatic compound and (b) at least one salt or complex of an alkali or alkaline earth metal.

Hit Structure

CAS Registry Number
916986-85-1 CAPLUS

Chemical or Trade Name
Phenol, 2-(6-phenanthridinyl)-, lithium salt (1:1) (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2006:1029402 CAPLUS Full-text

Document Number
145:392006

Title
Microorganism cell detection method using fluorescent indicator

Author/Inventor
Horikiri, Shigetoshi

Patent Assignee/Corporate Source
Matsushita Electric Industrial Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 10pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006262775	A	20061005	JP 2005-85504	20050324

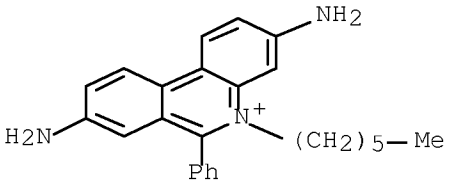
Abstract

A microorganism cell detection method is provided, which comprises using a fluorescent indicator to a test sample containing or potentially containing microorganism cells, and detecting microorganism cells with a low cost and an improved accuracy in comparison with the conventionally known methods. The method is characterized in that the intensity of fluorescence generated by microorganism cells is increased by bringing a fluorescent indicator (e.g., fluorescent nucleic acid staining agent) and a luminescence sensitizer (e.g., divalent metal ion) into contact with a microorganism cell sample, and thereby, the measurement sensitivity is improved. Also provided is a microorganism counting apparatus using a small-sized and inexpensive light source, which is used for this method.

Hit Structure

CAS Registry Number
211566-66-4 CAPLUS

Chemical or Trade Name
Phenanthridinium, 3,8-diamino-5-hexyl-6-phenyl-, iodide (1:1) (CA INDEX NAME)



L8 ANSWER 28 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2006:655771 CAPLUS Full-text

Document Number
145:124968

Title
Polymer compound and its use in heat-resistant polymer **light-emitting** device

Author/Inventor

Kobayashi, Shigeya; Kobayashi, Satoshi

Patent Assignee/Corporate Source

Sumitomo Chemical Company, Limited, Japan

Source

PCT Int. Appl., 154 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006070848	A1	20060706	WO 2005-JP24011	20051221
JP 2006182920	A	20060713	JP 2004-378517	20041228
GB 2437213	A	20071017	GB 2007-14555	20051221
DE 112005003270	T5	20080410	DE 2005-112005003270	20051221
US 20080145571	A1	20080619	US 2007-722225	20070620
KR 2007090041	A	20070904	KR 2007-717119	20070725
CN 101124259	A	20080213	CN 2005-80048421	20070817

Abstract

Disclosed is a polymer compound characterized by containing a structure represented by the following formula I (ring A and ring B independently represent an optionally substituted aromatic hydrocarbon ring, and ring C represents an alicyclic hydrocarbon which contains no fused aromatic compound while having at least one substituent; the alicyclic hydrocarbon may contain a heteroatom).

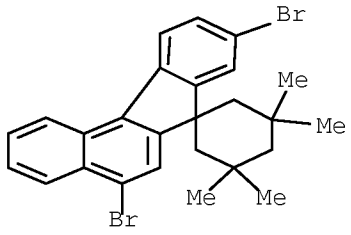
Hit Structure

CAS Registry Number
896732-77-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 5,9-dibromo-3',3',5',5'-tetramethylspiro[7H-benzo[c]fluorene-7,1'-cyclohexane] (9CI) (CA INDEX NAME)

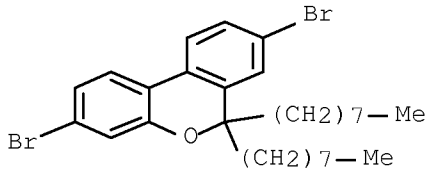
CM
1

CRN 896732-73-3
CMF C26 H26 Br2



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

. L8 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2006:564700 CAPLUS Full-text

Document Number
145:53090

Title
Aminoanthryl-substituted compounds and organic **electroluminescent** devices therewith having high color purity and efficiency

Author/Inventor
Saito, Akito; Okinaka, Keiji; Yamada, Naoki; Yajima, Masataka; Senoo, Akihiro; Ueno, Kazunori

Patent Assignee/Corporate Source
Canon Inc., Japan

Source
Jpn. Kokai Tokkyo Koho, 38 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

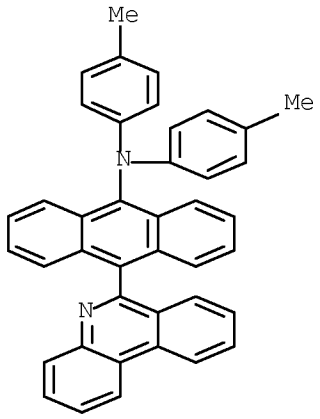
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006151844	A	20060615	JP 2004-342464	20041126

Abstract
The compds. are represented by I [Z1 = single bond, alk(en)ylene, aralkylene, etc.; Ar1 = (ace)phenanthrene, acenaphthylene, etc.; Ar2, Ar3 = alkyl, aralkyl, aryl, etc.; X1 = single bond, arylene, etc.; R1, R2 = H, D, halo, alkyl, etc.; a = 1-8; b = 1-3; c = 1-4]. Organic layers of the devices title mentioned contain the compds. The devices show long service life.

Hit Structure

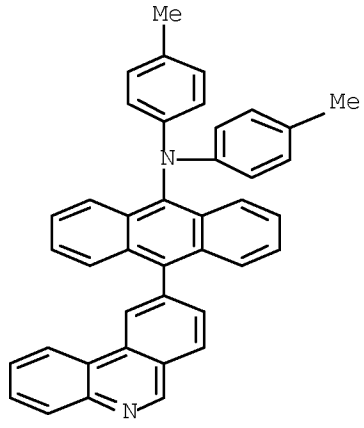
CAS Registry Number
890042-03-2 CAPLUS

Chemical or Trade Name
9-Anthracenamine, N,N-bis(4-methylphenyl)-10-(6-phenanthridinyl)- (CA INDEX NAME)



CAS Registry Number
890042-04-3 CAPLUS

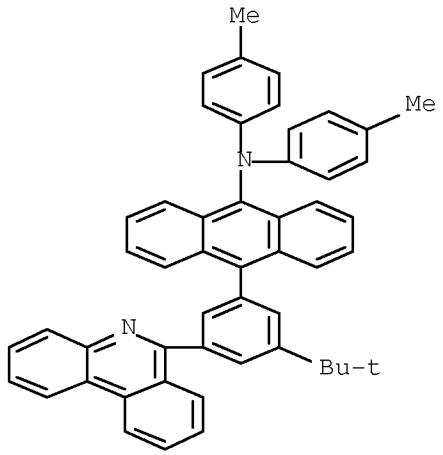
Chemical or Trade Name
9-Anthracenamine, N,N-bis(4-methylphenyl)-10-(9-phenanthridinyl)- (CA INDEX NAME)



CAS Registry Number

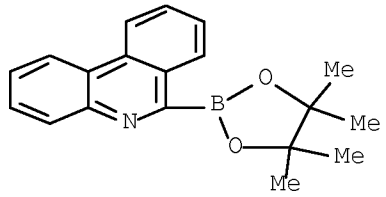
890042-06-5 CAPLUS

Chemical or Trade Name
9-Anthracenamine, 10-[3-(1,1-dimethylethyl)-5-(6-phenanthridinyl)phenyl]-N,N-bis(4-methylphenyl)- (CA INDEX NAME)



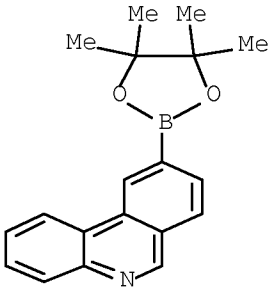
CAS Registry Number
890042-19-0 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)



CAS Registry Number
890042-20-3 CAPLUS

Chemical or Trade Name
Phenanthridine, 9-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L8 ANSWER 30 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2006:212535 CAPLUS Full-text
Document Number
144:301737
Title
Polymer luminescent material composition and polymer **light-emitting** devices
Author/Inventor

Uetani, Yasunori; Shirasawa, Nobuhiko; Nakanishi, Hirotoshi

Patent Assignee/Corporate Source

Sumitomo Chemical Company, Limited, Japan

Source

PCT Int. Appl., 82 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006025290	A1	20060309	WO 2005-JP15606	20050823
GB 2432838	A	20070606	GB 2007-5585	20050823
GB 2432838	B	20090218		
DE 112005002083	T5	20070719	DE 2005-112005002083	20050823
CN 101048465	A	20071003	CN 2005-80036762	20050823
JP 2006097008	A	20060413	JP 2005-250978	20050831
JP 2006169502	A	20060629	JP 2005-250979	20050831
KR 2007061840	A	20070614	KR 2007-707064	20070328
US 20090039765	A1	20090212	US 2007-574029	20070821

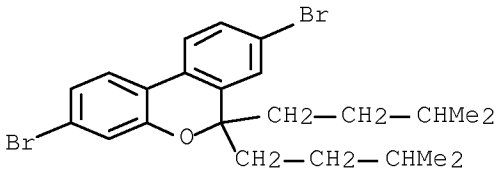
Abstract

A polymer luminescent material composition is characterized by comprising a polymer luminescent material and a compound selected from among compds. of the following general formulas I to IV: wherein X is an atom or atomic group forming a 5- or 6-membered ring together with the four carbon atoms constituting the 2 benzene rings; and Q and T are each independently H, halo, alkyl, alkyloxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylalkylthio, alkenyl, alkynyl, arylalkenyl, arylalkynyl, substituted silyloxy, substituted silylthio, substituted silylamino, substituted amino, amido, an acid imide group, acyloxy, a monovalent heterocyclic group, heteroaryloxy, heteroarylthio, cyano, or nitro.

Hit Structure

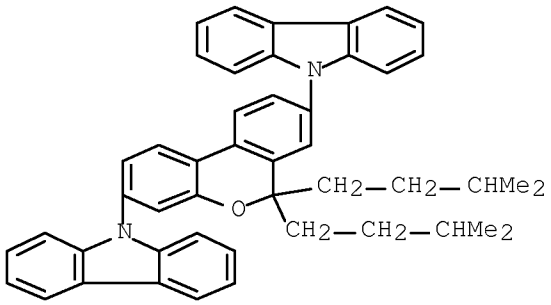
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



CAS Registry Number
878557-66-5 CAPLUS

Chemical or Trade Name
9H-Carbazole, 9,9'-[6,6-bis(3-methylbutyl)-6H-dibenzo[b,d]pyran-3,8-diyl]bis- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L8 ANSWER 31 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2006:132088 CAPLUS Full-text

Document Number

144:339664

Title

Theoretical study of Ir(III) complexes of fluorinated phenylbenzoquinoline as red phosphorescent material

Author/Inventor

Lee, Young Hee; Park, No Gill; Ha, Yunkyoung; Kim, Young Sik

Patent Assignee/Corporate Source

Department of Molecular Electronics Engineering, Hongik University, Seoul, 121-791, S. Korea

Source

Japanese Journal of Applied Physics, Part 1: Regular Papers, Brief Communications & Review Papers (2006), 45(1B), 563-567 CODEN: JAPNDE

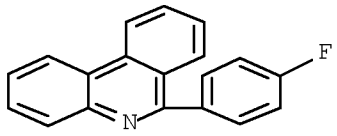
Document Type

Journal

Language
English
Abstract
Ir(III) complexes with fluorinated 4-benzoquinoline (pbq) ligands were designed and characterized theor. The Hartree-Fock (HF) method with the 3-21G(d) basis set and d. functional theory (DFT) using the B3LYP functional with the 6-31G(d) basis set were used for the geometry optimization and the energy level calcn. of the ground state of these complexes, resp. Excited triplet and singlet states were examined using the time-dependent d. functional theory (TD-DFT). As a result, these complexes produced a pure red emission due to the elongated conjugation length. In particular, the Ir(III) complex with pbq-CF3 ligands exhibits the largest emission efficiency and emits light of the purest red wavelength.
Hit Structure

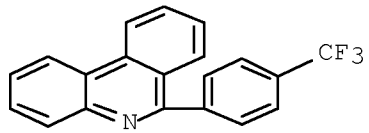
CAS Registry Number
632335-04-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-(4-fluorophenyl)- (CA INDEX NAME)



CAS Registry Number
880493-15-2 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

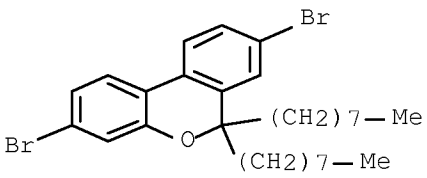
L8 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2005:324209 CAPLUS Full-text
Document Number
142:374970
Title
Polymer **light-emitting** material and polymer **light-emitting** device
Author/Inventor
Nakatani, Tomoya; Sekine, Chizu; Mikami, Satoshi; Kobayashi, Satoshi
Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan
Source
PCT Int. Appl., 111 pp. CODEN: PIXXD2
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033174	A1	20050414	WO 2004-JP14569	20040928
DE 112004001856	T5	20060727	DE 2004-112004001856	20040928
GB 2424895	A	20061011	GB 2006-8519	20040928
GB 2424895	B	20080709		
CN 1863838	A	20061115	CN 2004-80028951	20040928
JP 2005126705	A	20050519	JP 2004-286813	20040930
US 20070051922	A1	20070308	US 2006-573839	20060329
KR 2006115861	A	20061110	KR 2006-708210	20060428

Abstract
Disclosed is a polymer **light-emitting** material containing a polymer compound with number average mol. weight of 103-108 composed of repeating units I or II and exhibiting light emission from the triplet excited state, wherein Ar1, Ar2, Ar3, Ar4 = independently trivalent aromatic hydrocarbon group or trivalent heterocyclic group; X1, X2 = independently O, S, C(:O), S(:O), SO2, CR1R2, SiR3R4, NR5, BR6, PR7, or P(:O)R8 (X1 and Ar2 are bonded with adjacent carbon atoms in the aromatic ring of Ar1 and X2 and Ar1 are bonded with adjacent carbon atoms in the aromatic ring of Ar2); X3, X4 = independently N, B, P, CR9, or SiR10 (X3 and Ar4 are bonded with adjacent atoms in the aromatic ring of Ar3 and X4 and Ar3 are bonded with adjacent atoms in the aromatic ring of Ar4); and R1-10 = H, halogen, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy, arylakylthio, acyl, acyloxy, amide, acidic imide, imide residue, amino, substituted amino, silyl, silyloxy, silylthio, or silylamino, monovalent heterocyclic, heteroaryloxy, heteroarylthio, arylalkenyl, arylethynyl, carboxy, alkoxycarbonyl, aryloxycarbonyl, arylalkyloxycarbonyl, heteroaryloxycarbonyl, or cyano group (R1 and R2, R3 and R4 may be bonded each other to form a ring). Thus, 6.65 g 2,7-dibromo-9-fluorenone was treated with sodium perborate monohydrate, reacted with 2,2'-dibromo-5,5'-bis(octyloxy)-1,1'-biphenyl, treated with p-toluenesulfonic acid monohydrate to give 3,8-dibromo-3',6'-bis(octyloxy)-spiro[6H-dibenzo[b,d]pyran-6,9'- [9H]fluorene], 0.37 g of which was polymerized with 0.28 g 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (preparation given) to give a copolymer with number average mol. weight 2.8 + 104 and weight average mol. weight 1.4 + 105, which was mixed with 5% (2,4-pentanedionato-κO,κO')bis[2-(2-pyridinyl- κN)benzo[b]thien-3-yl-κC]-iridium, applied on Baytron P/ITO/glass substrate, dried at 80° for 1 h, lithium fluoride, calcium, and aluminum were deposited thereon in this order to give an **electroluminescent** element giving emission at 620 nm.
Hit Structure

CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



CAS Registry Number
849693-56-7 CAPLUS

Chemical or Trade Name
Spiro[6H-dibenzo[b,d]pyran-6,9'-[9H]fluorene],
3,8-dibromo-3',6'-bis(octyloxy)-, polymer with
3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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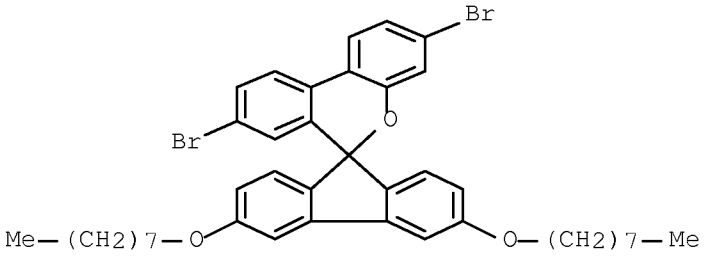
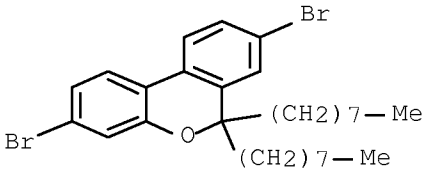
CRN 688013-72-1
CMF C41 H46 Br2 O3



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O



L8 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2005:302048 CAPLUS Full-text

Document Number
142:363456

Title
Organic **electroluminescent** devices with high efficiency and excellent stability on repetitive uses and materials therefor

Author/Inventor
Onikubo, Shunichi; Enokida, Toshio; Suda, Yasumasa; Toba, Yasumasa; Kimura, Yasunori; Kaneko, Tetsuya

Patent Assignee/Corporate Source
Toyo Ink Mfg. Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 35 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

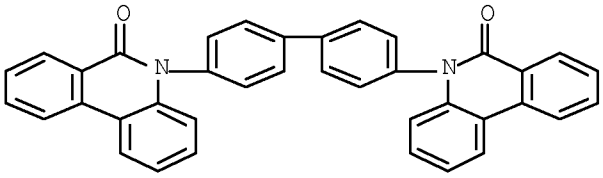
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005089544	A	20050407	JP 2003-322556	20030916
JP 4380277	B2	20091209		

Abstract
The materials contain (a) compds. having double bond-containing electron-withdrawing groups on azacycle and (b) phosphorescent materials, where one of the double bond-forming two C atoms is a part of ring and the other is not. The azacyclic compds. may be acridone derivs. Organic LED having organic layers including one or more comprised of the above materials are further claimed.

Hit Structure

CAS Registry Number
786720-64-7 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 5,5'-[1,1'-biphenyl]-4,4'-diylbis- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 34 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2004:1128942 CAPLUS Full-text

Document Number
142:82001

Title
Color conversion film for organic **electroluminescent** device

Author/Inventor
Iimura, Kiyotoshi; Doi, Shuji

Patent Assignee/Corporate Source
Sumitomo Chemical Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 24 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004362910	A	20041224	JP 2003-159000	20030604

Abstract
The invention relates to a color conversion film, suited for use in an organic **electroluminescent** device, comprising a fluorescent and/or phosphorescent conjugated polymer.

Hit Structure

CAS Registry Number
811819-84-8 CAPLUS

Chemical or Trade Name
2,1,3-Benzothiadiazole, 4,7-bis(5-bromo-4-hexyl-2-thienyl)-, polymer with 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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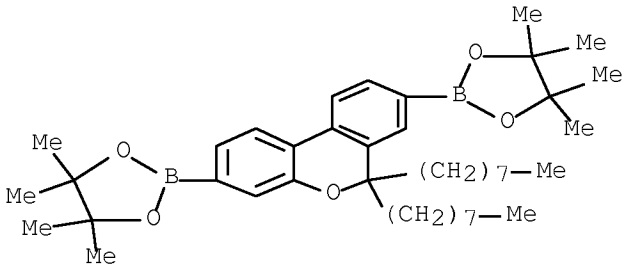
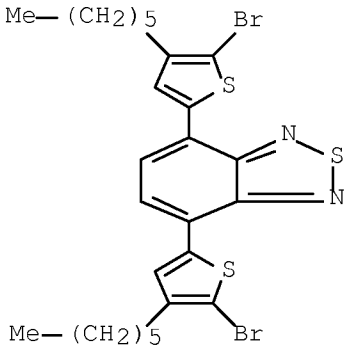
CRN 688013-75-4
CMF C41 H64 B2 O5



CM
2

CRN 444579-39-9
CMF C26 H30 Br2 N2 S3



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L8 ANSWER 35 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2004:928765 CAPLUS Full-text

Document Number
141:403234

Title
Phenanthridinones, their charge-transporting materials or **electroluminescent** materials, and organic **electroluminescent** devices using them

Author/Inventor
Takeuchi, Masako; Sato, Hideki

Patent Assignee/Corporate Source
Mitsubishi Chemical Corp., Japan

Source
Jpn. Kokai Tokkyo Koho, 49 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

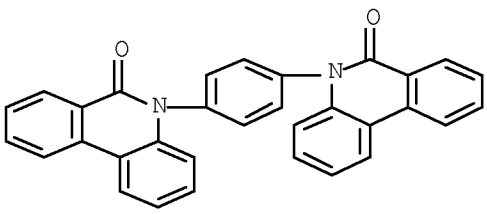
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004307380	A	20041104	JP 2003-102100	20030404

Abstract
The phenanthridinones are I (X = n-valent linkage bonded to C or N atom in benzene rings; C and N atoms which are not bonded to the linkage may be substituted; n = 2, 3). Thus, I (X = 1,4-phenylene bonded to N, n = 2) was manufactured and used as a hole-preventing layer for an organic **electroluminescent** device showing low operation voltage.

Hit Structure

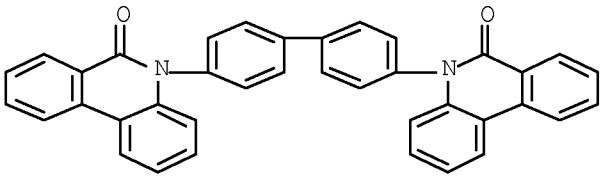
CAS Registry Number
786720-61-4 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 5,5'-(1,4-phenylene)bis- (CA INDEX NAME)



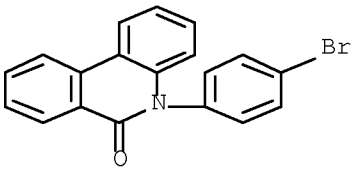
CAS Registry Number
786720-64-7 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 5,5'-[1,1'-biphenyl]-4,4'-diylbis- (9CI) (CA INDEX NAME)



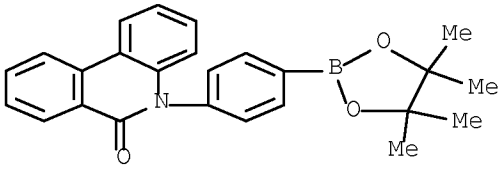
CAS Registry Number
786720-62-5 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 5-(4-bromophenyl)- (CA INDEX NAME)



CAS Registry Number
786720-63-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 5-[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

. L8 ANSWER 36 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2004:392502 CAPLUS Full-text

Document Number
140:415047

Title
High-molecular compounds and polymer **light- emitting** devices made by using the same

Author/Inventor
Doi, Shuji; Kobayashi, Satoshi; Noguchi, Takanobu

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
PCT Int. Appl., 131 pp. CODEN: PIXXD2

Document Type
Patent

Language
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039859	A1	20040513	WO 2003-JP12697	20031003
JP 2004168999	A	20040617	JP 2003-343244	20031001
AU 2003268752	A1	20040525	AU 2003-268752	20031003
EP 1571170	A1	20050907	EP 2003-748697	20031003
US 20080138651	A1	20080612	US 2005-532937	20050428
JP 2009215557	A	20090924	JP 2009-67794	20090319

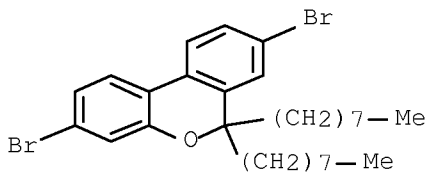
Abstract
The invention relates to a high-mol. compds. comprising repeating units represented by the general formula I or II and having number-average mol. wts. of 103-108 in terms of polystyrene: (1) [wherein Ar1 and Ar2 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X1 and X2 are each independently O, S, C(= O), S(= O), SO2, C(R1)(R2), Si(R3)(R4), N(R5), B(R6), P(R7), or P(= O)(R8), with the

provisos that X1 and X2 must not be the same and that X1 and Ar2 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar1, and X2 and Ar1 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar2] (2) [wherein Ar3 and Ar4 are each independently a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group; and X3 and X4 are each independently N, B, P, C(R9), or Si(R10), with the provisos that X3 and X4 must not be the same and that X3 and Ar4 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar3, and X4 and Ar3 are bonded resp. to the adjacent carbon atoms constituting the aromatic ring of Ar4].

Hit Structure

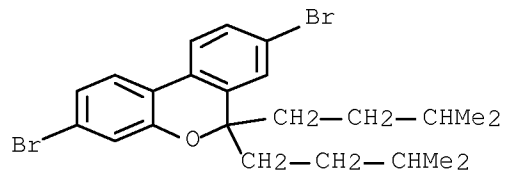
CAS Registry Number
688013-66-3 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl- (CA INDEX NAME)



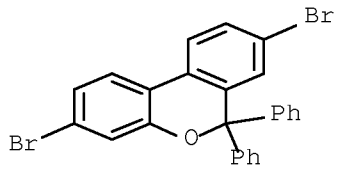
CAS Registry Number
688013-67-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3-methylbutyl)- (CA INDEX NAME)



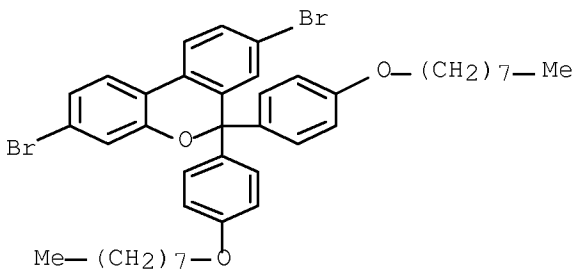
CAS Registry Number
688013-68-5 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-diphenyl- (CA INDEX NAME)



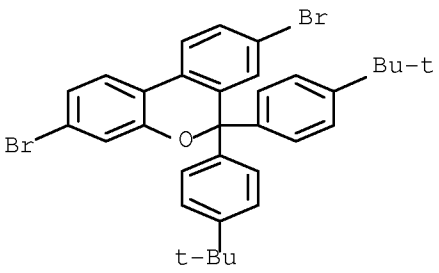
CAS Registry Number
688013-69-6 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]- (CA INDEX NAME)



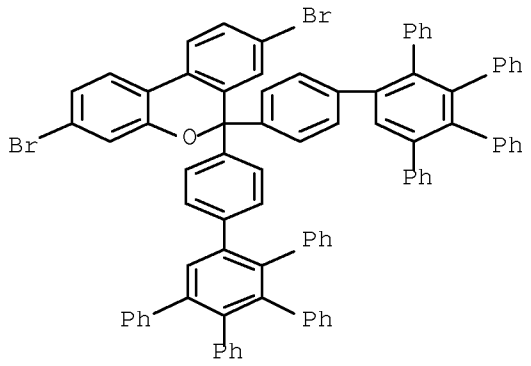
CAS Registry Number
688013-70-9 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



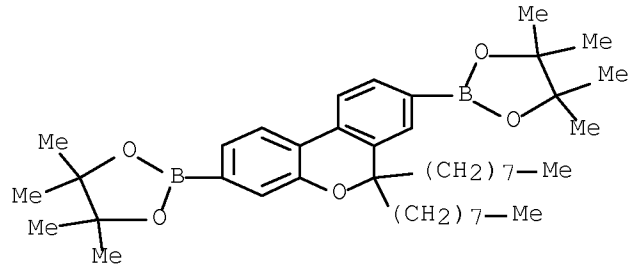
CAS Registry Number
688013-71-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)- (9CI) (CA INDEX NAME)



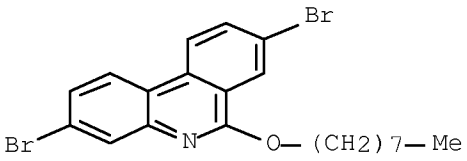
CAS Registry Number
688013-75-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 6,6-dioctyl-3,8-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)- (CA INDEX NAME)



CAS Registry Number
688013-76-5 CAPLUS

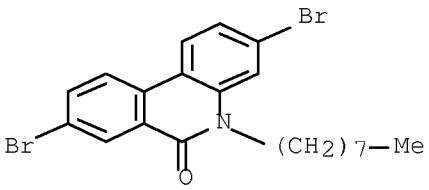
Chemical or Trade Name
Phenanthridine, 3,8-dibromo-6-(octyloxy)- (CA INDEX NAME)



CAS Registry Number

688013-77-6 CAPLUS

Chemical or Trade Name
6(5H)-Phenanthridinone, 3,8-dibromo-5-octyl- (CA INDEX NAME)

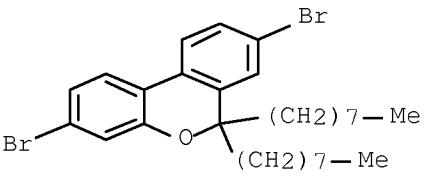


CAS Registry Number
688013-78-7 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, homopolymer (9CI) (CA INDEX NAME)

CM
   1

CRN 688013-66-3
CMF C29 H40 Br2 O

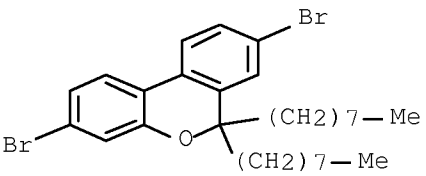


CAS Registry Number
688013-79-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 1,4-dibromo-2,5-bis(decyloxy)benzene (9CI) (CA INDEX NAME)

CM
   1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
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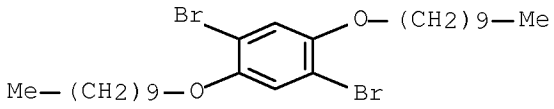
CRN 152269-98-2
CMF C26 H44 Br2 O2

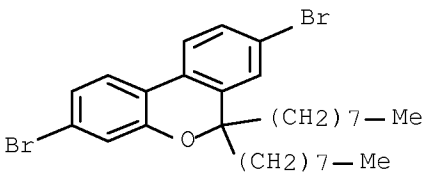


CAS Registry Number
688013-80-1 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene (9CI) (CA INDEX NAME)

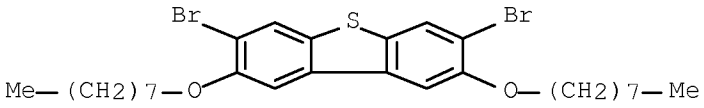
CM
   1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 599212-67-6
CMF C28 H38 Br2 O2 S

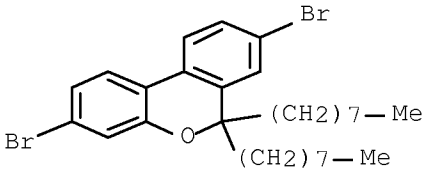


CAS Registry Number
688013-81-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
3,7-dibromo-2,8-bis(octyloxy)dibenzofuran (9CI) (CA INDEX NAME)

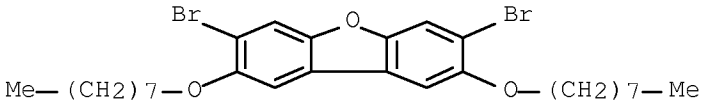
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 599212-92-7
CMF C28 H38 Br2 O3

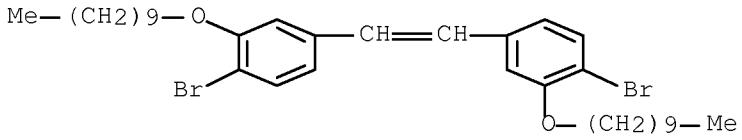


CAS Registry Number
688013-83-4 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-dioctyl-, polymer with
1,1'-(1,2-ethenediyl)bis[4-bromo-3-(decyloxy)benzene] (9CI) (CA INDEX
NAME)

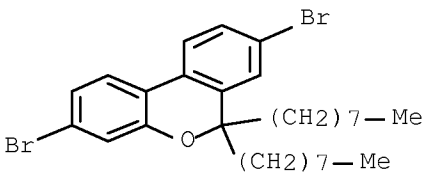
CM
1

CRN 688013-82-3
CMF C34 H50 Br2 O2



CM
2

CRN 688013-66-3
CMF C29 H40 Br2 O

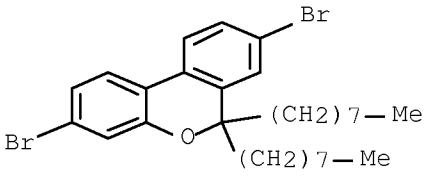


CAS Registry Number
688013-84-5 CAPLUS

Chemical or Trade Name
Benzenamine, N,N-bis(4-bromophenyl)-4-(1-methylpropyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

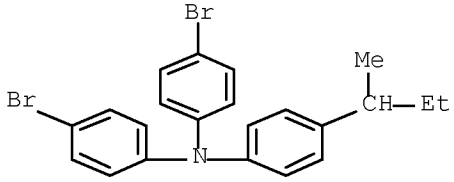
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 287976-94-7
CMF C22 H21 Br2 N

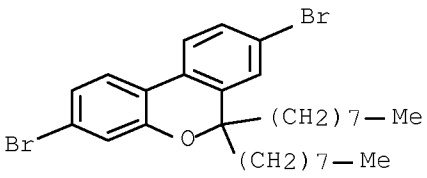


CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

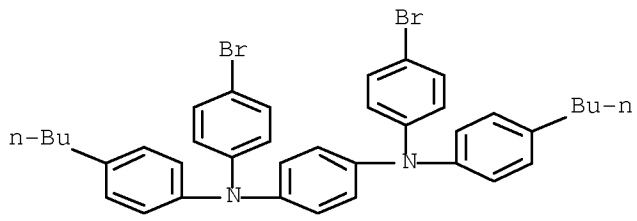
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
688013-85-6 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

CM
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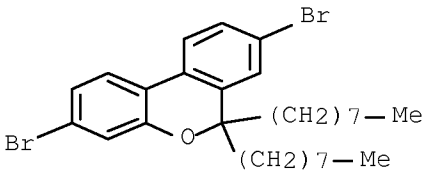
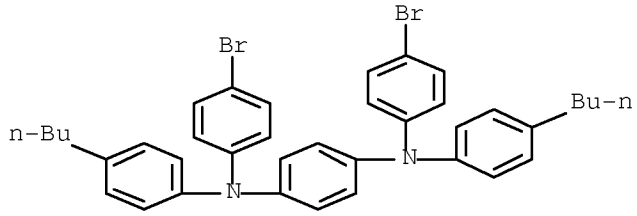
CRN 688013-66-3
CMF C29 H40 Br2 O



CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2

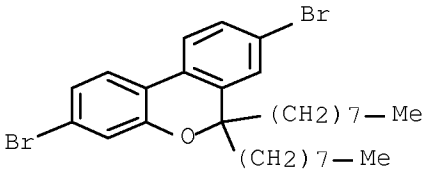


CAS Registry Number
688013-86-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,7-dibromo-2,8-bis(octyloxy)dibenzothiophene and 3,8-dibromo-6,6-dioctyl-6H-dibenzo[b,d]pyran (9CI) (CA INDEX NAME)

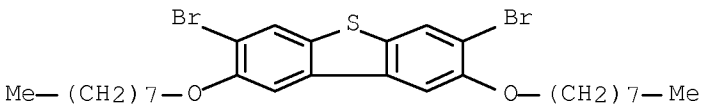
CM
1

CRN 688013-66-3
CMF C29 H40 Br2 O



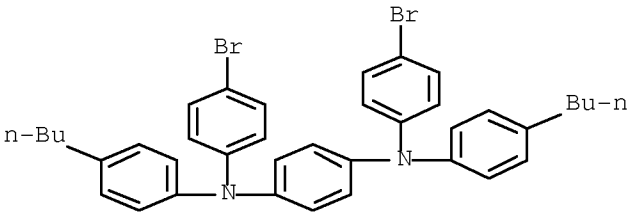
CM
2

CRN 599212-67-6
CMF C28 H38 Br2 O2 S



CM
3

CRN 372200-89-0
CMF C38 H38 Br2 N2

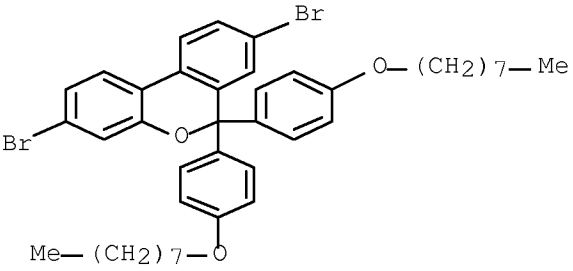


CAS Registry Number
688013-87-8 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-,
homopolymer (9CI) (CA INDEX NAME)

CM
1

CRN 688013-69-6
CMF C41 H48 Br2 O3

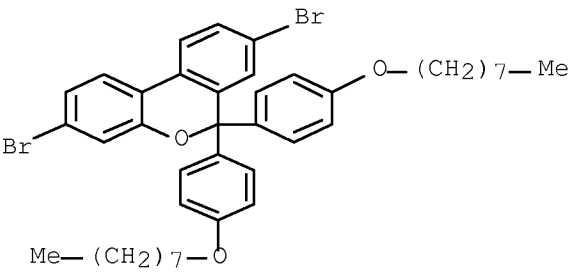


CAS Registry Number
688013-88-9 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-,
polymer with 3,8-dibromo-6,6-bis[4-(octyloxy)phenyl]-6H-dibenzo[b,d]pyran
(9CI) (CA INDEX NAME)

CM
1

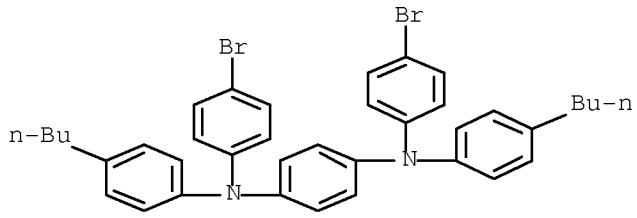
CRN 688013-69-6
CMF C41 H48 Br2 O3



CM
2

CRN 372200-89-0

CMF C38 H38 Br2 N2

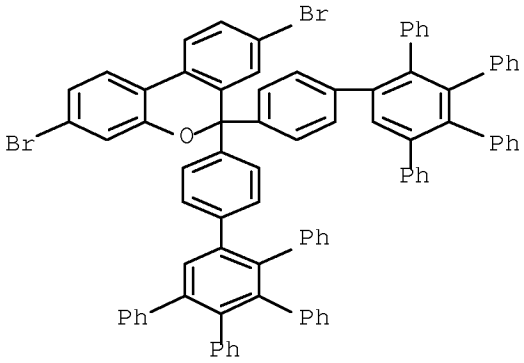


CAS Registry Number
688013-89-0 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran, 3,8-dibromo-6,6-bis(3',4',5'-triphenyl[1,1':2',1''-terphenyl]-4-yl)-, homopolymer (9CI) (CA INDEX NAME)

CM
  1

CRN 688013-71-0
CMF C85 H56 Br2 O



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

L8 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2003:494585 CAPLUS Full-text

Document Number
140:32970

Title
Highly efficient red electrophosphorescent devices based on iridium isoquinoline complexes: Remarkable external quantum efficiency over a wide range of current

Author/Inventor
Su, Ying-Ju; Huang, Heh-Lung; Li, Chien-Le; Chien, Chin-Hsiung; Tao, Yu-Tai; Chou, Pi-Tai; Datta, Swarup; Liu, Rai-Shung

Patent Assignee/Corporate Source
Department of Chemistry, National Tsinghua University, Hsinchu, 30043, Taiwan

Source
Advanced Materials (Weinheim, Germany) (2003), 15(11), 884-888 CODEN: ADVMEW; ISSN: 0935-9648

Document Type
Journal

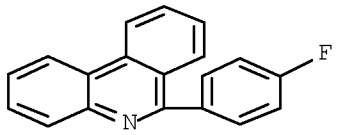
Language
English

Abstract
Outstanding performance as an emissive dopant in organic **light- emitting** devices is shown by red phosphorescent Ir complexes based on an isoquinoline framework. Remarkably high efficiency can be maintained in the devices at high currents with a negligible effect from either triplet-triplet (T-T) annihilation or saturation of the excited states.

Hit Structure

CAS Registry Number
632335-04-7 CAPLUS

Chemical or Trade Name
Phenanthridine, 6-(4-fluorophenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 142 THERE ARE 142 CAPLUS RECORDS THAT CITE THIS RECORD (146 CITINGS)

L8 ANSWER 38 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2003:450802 CAPLUS Full-text

Document Number
139:36984

Title
Fluorescent polymer, their preparation and polymer **light-emitting** device

Author/Inventor
Kobayashi, Satoshi; Noguchi, Takanobu; Tsubata, Yoshiaki; Kitano, Makoto; Doi, Shuji; Ueoka, Takahiro; Nakazono, Akiko

Patent Assignee/Corporate Source
Sumitomo Chemical Company, Limited, Japan

Source
Eur. Pat. Appl., 58 pp. CODEN: EPXXDW

Document Type
Patent

Language
English

Patent Information

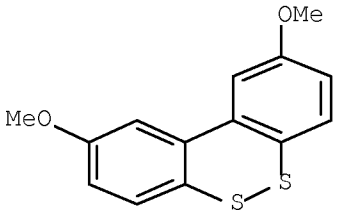
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1318163	A1	20030611	EP 2002-258395	20021205
EP 1318163	B1	20100127		
SG 124249	A1	20060830	SG 2002-7169	20021127
JP 2003231741	A	20030819	JP 2002-347573	20021129
JP 4192578	B2	20081210		
TW 268941	B	20061221	TW 2002-91134721	20021129
US 20030168656	A1	20030911	US 2002-309101	20021204
EP 2067807	A1	20090610	EP 2009-4354	20021205
EP 2067808	A1	20090610	EP 2009-4355	20021205
US 20050042195	A1	20050224	US 2004-954223	20041001
US 7662478	B2	20100216		
US 20080103278	A1	20080501	US 2007-955788	20071213
JP 2008179821	A	20080807	JP 2008-17653	20080129
JP 2009001804	A	20090108	JP 2008-174340	20080703

Abstract
A polymer of Mn 103-108 comprises a repeating unit I, where A1 = divalent group in which the bond distance ratio (bond distance of C(α)-A1 / bond distance of C(α)-C(β)) is ≥1.10; R1-6 = H, alkyl, alkyloxy, aryloxy, arylalkyloxy; R2 and R3 or R4 and R5 may be connected to form a ring. The polymer is useful as a **light- emitting** material, a charge transporting material, etc.

Hit Structure

CAS Registry Number
540536-33-2 CAPLUS

Chemical or Trade Name
Dibenzo[c,e][1,2]dithiin, 2,9-dimethoxy- (CA INDEX NAME)

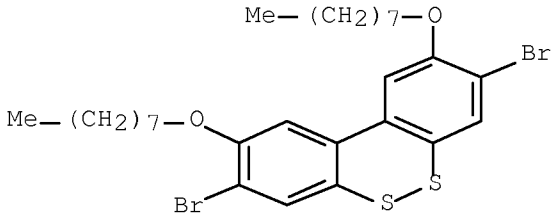


CAS Registry Number
540536-20-7 CAPLUS

Chemical or Trade Name
1,4-Benzenediamine, N,N'-bis(4-bromophenyl)-N,N'-bis(4-butylphenyl)-, polymer with 3,8-dibromo-2,9-bis(octyloxy)dibenzo[c,e][1,2]dithiin (9CI) (CA INDEX NAME)

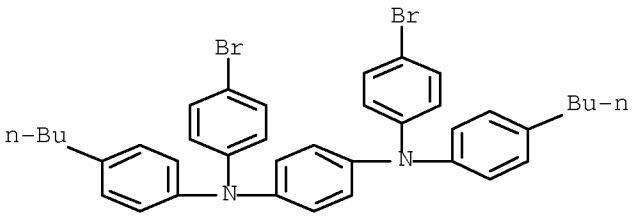
CM
1

CRN 540536-09-2
CMF C28 H38 Br2 O2 S2



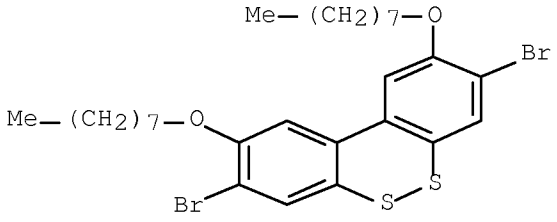
CM
2

CRN 372200-89-0
CMF C38 H38 Br2 N2



CAS Registry Number
540536-09-2 CAPLUS

Chemical or Trade Name
Dibenzo[c,e][1,2]dithiin, 3,8-dibromo-2,9-bis(octyloxy)- (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L8 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2002:965153 CAPLUS Full-text
Document Number
138:39733

Title

Synthesis and luminescent characteristics of novel phosphorus containing **light-emitting** polymers

Author/Inventor

Sun, Yih-Min

Patent Assignee/Corporate Source

Taiwan

Source

U.S. Pat. Appl. Publ., 10 pp. CODEN: USXXCO

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020193522	A1	20021219	US 2001-879963	20010614

Abstract

The present invention relates to synthesis of novel luminescent phosphorus containing **light-emitting** polymers with improved luminescence efficiency. According to the proposed method, the electron-transporting chromophores are introduced into an emission polymer to increase its electron affinity. Further, several phosphorus-containing emission chromophores are synthesized and incorporated with electron-transporting chromophores finally resulting in the novel phosphorus chromophores emitting blue light as expected and with improved thermal stability of resulting polymers so that the absorption peaks of these polymers are restricted to a stable range. The polymers are useful as materials for **light emitting** diodes. Thus, 4-fluorobenzoic acid was treated with N2H4.H2SO4 in presence of polyphosphoric acid to give 2,5-bis(4-fluorobenzoic acid)-1,3,4-oxadiazole monomer. This monomer was reacted with 6-hydroxy-6H-dibenz[c,e][1,2]oxaphosphorin derivs. containing hydroquinone, 2-phenylhydroquinone, and 1,4-naphthalenediol. The obtained P-containing polyether-polyoxadiazoles showed good luminescent characteristics.

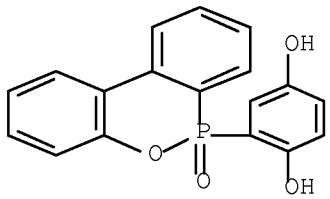
Hit Structure

CAS Registry Number
313271-84-0 CAPLUS

Chemical or Trade Name
1,4-Benzenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

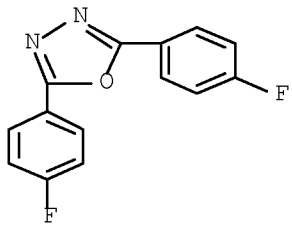
CM
1

CRN 99208-50-1
CMF C18 H13 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

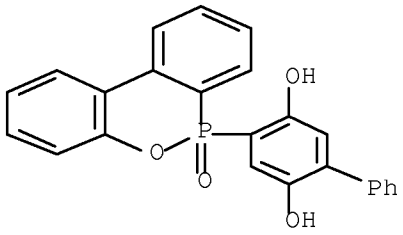


CAS Registry Number
313271-86-2 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-2,5-diol, 4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

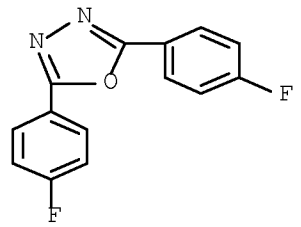
CM
1

CRN 313271-85-1
CMF C24 H17 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

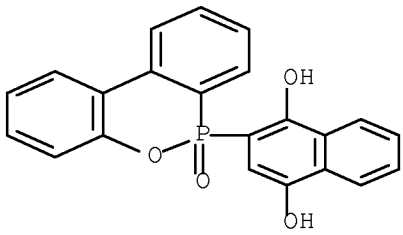


CAS Registry Number
313271-87-3 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

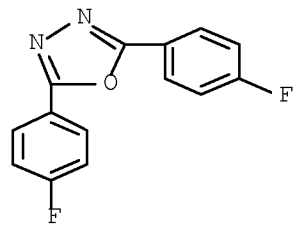
CM
1

CRN 107394-28-5
CMF C22 H15 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O



L8 ANSWER 40 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2002:747804 CAPLUS Full-text
Document Number
137:279633
Title

Production of novel polymers with excellent electronic acceptability for **electroluminescent** materials

Author/Inventor

Yamamoto, Ryuichi; Cui, Bing Ji

Patent Assignee/Corporate Source

TDK Corporation, Japan

Source

Jpn. Kokai Tokkyo Koho, 25 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002284862	A	20021003	JP 2001-86128	20010323

Abstract

Title novel electronic-accepting polymer, useful as electrochromic materials and battery active materials, etc. (no data), possesses repeating unit structure shown by formula I as a principal chain, wherein X1 and X2 independently represent C (benzene ring) or N (pyridine ring); R1 and R2 independently represent substituent; k = 0, 1, 2 or 3 when forming benzene ring, and k= 0, 1 or 2 when forming pyridine ring; Y = 5-7 hetero membered ring. Thus, poly[dipyrido[3,2-c:2',3'-e]bipyridazine-3,8- diyl] (Mw = 3,000) was synthesized by polymerizing 3,8-dibromodipyrido[3,2-c:2',3'-e]bipyridazine (0.41 g) in the presence of bis(1,5-cyclooctadiene)nickel (0.86 g), 2,2'-bipyridine (0.41 g). and 1,5-cyclooctadiene (1.45 g) at 60°-70° for 48 h.

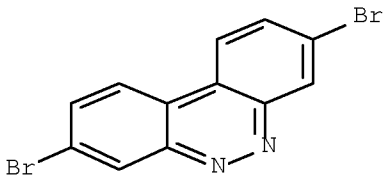
Hit Structure

CAS Registry Number
464895-31-6 CAPLUS

Chemical or Trade Name
Benzo[c]cinnoline, 3,8-dibromo-, homopolymer (9CI) (CA INDEX NAME)

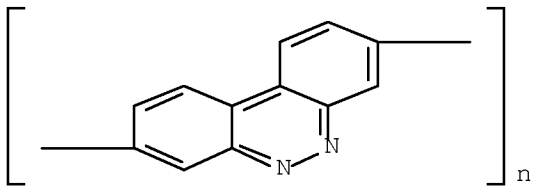
CM
1

CRN 79580-35-1
CMF C12 H6 Br2 N2



CAS Registry Number
464895-38-3 CAPLUS

Chemical or Trade Name
Poly(benzo[c]cinnoline-3,8-diyl) (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

. L8 ANSWER 41 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2002:501831 CAPLUS Full-text

Document Number
137:217326

Title
Studies on the synthesis and optical properties of novel blue **light-emitting** polymers containing phosphorus and oxadiazole structures

Author/Inventor
Sun, Yih-Min; Hung, Albert Y. C.; Wang, Chih-Ta

Patent Assignee/Corporate Source
Department of Industrial Safety and Hygiene, Chung Hwa College of Medical Technology, Tainan Hsien, Taiwan

Source
Journal of Applied Polymer Science (2002), 85(11), 2367-2376 CODEN: JAPNAB; ISSN: 0021-8995

Document Type
Journal

Language
English

Abstract
Novel phosphorus-containing polymers with high-electron-affinity oxadiazole were synthesized and characterized by thermal anal. and spectroscopy (IR, ultra-violet-visible, photoluminescence, cyclic voltammetry) measurements. These new polymers can be used as blue **electroluminescent** materials and as electron-transport layers in polymer **light- emitting** diodes. In this study, aromatic polyethers containing electron-transporting chromophores and emission chromophores were synthesized from 2,5-bis-(4-fluoroaryl)-1,3,4-oxadiazole and 2-(6-oxido-6H-dibenz<c,e><1,2> oxaphosphorin-6-yl)-1,4-naphthalenediol (DOPO-NBQ). The effects of reaction temperature and time on the formation of polyethers were investigated to obtain optimum conditions for polyether manufacturing All the resulting polymers were thermally stable at <460°C. The absorption peaks of these polymers were at 350-365 nm, whereas the photoluminescent peaks were at 460-481 nm. But, the intensity of polymer absorption decreased and a blue shift was observed in the photoluminescent spectra as the temperature increased. In addition, these polymers containing the electron-transporting oxadiazole indeed showed extra reduction potentials in cyclic voltammetry measurements.

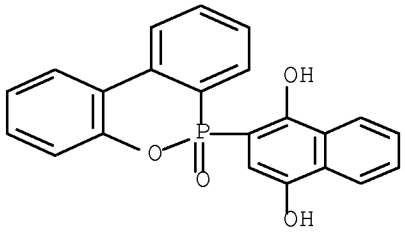
Hit Structure

CAS Registry Number
313271-87-3 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

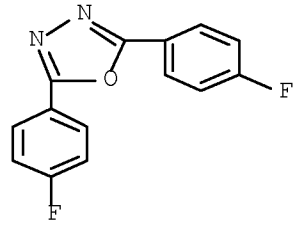
CM
1

CRN 107394-28-5
CMF C22 H15 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

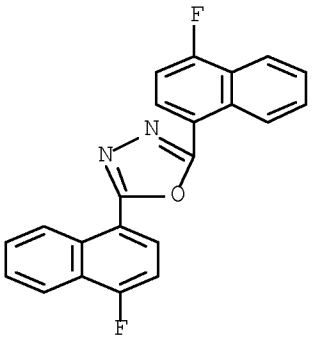


CAS Registry Number
455291-10-8 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluoro-1-naphthalenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

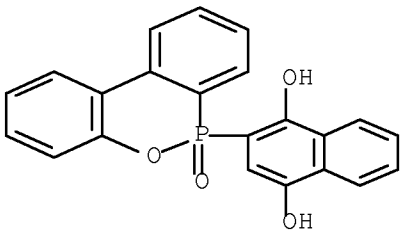
CM
1

CRN 148140-89-0
CMF C22 H12 F2 N2 O



CM
2

CRN 107394-28-5
CMF C22 H15 O4 P

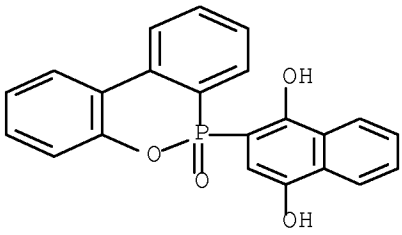


CAS Registry Number
455291-12-0 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 1,6-dibromohexane (9CI) (CA INDEX NAME)

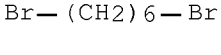
CM
1

CRN 107394-28-5
CMF C22 H15 O4 P



CM
2

CRN 629-03-8
CMF C6 H12 Br2



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

. L8 ANSWER 42 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
2000:833285 CAPLUS Full-text
Document Number
134:23342
Title
Hole-transporting phenanthridine derivatives having naphthalene substituents and organic **electroluminescent** devices therewith
Author/Inventor

Ito, Yuichi; Ogino, Kenji; Sato, Hisaya

Patent Assignee/Corporate Source
Toppan Printing Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

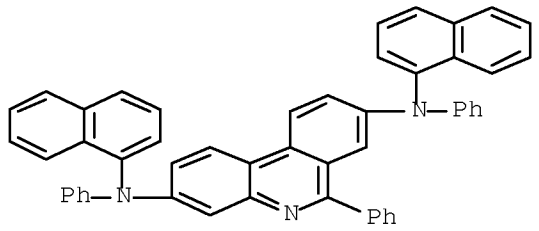
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000327664	A	20001128	JP 1999-135808	19990517

Abstract
The claimed derivs. are represented by I (R1 = Me, Et, aryl, diarylamino; R2 = Ph, tolyl, naphthyl, etc.) which show excellent heat resistance and low resistivity.

Hit Structure

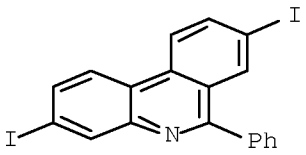
CAS Registry Number
309756-56-7 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N8-di-1-naphthalenyl-N3,N8,6-triphenyl- (CA INDEX NAME)



CAS Registry Number
309756-55-6 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-diiodo-6-phenyl- (CA INDEX NAME)



. L8 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2000:739337 CAPLUS Full-text

Document Number
134:170519

Title
Preparation of organic **light- emitting** polymers and study of film structure influence on luminescent characteristics

Author/Inventor
Sun, Yih-Min; Liu, H. H.; Juang, Fuh-Shyang; Tasi, Y. S.

Patent Assignee/Corporate Source
Department of Industrial Safety and Hygiene, Chung Hwa Institute of Technology, Tainan, Taiwan

Source
Proceedings of SPIE-The International Society for Optical Engineering (2000), 3939(Organic Photonic Materials and Devices II), 236-246 CODEN: PSISDG; ISSN: 0277-786X

Document Type
Journal

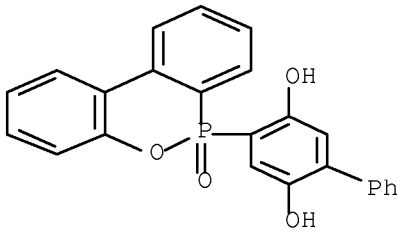
Language
English

Abstract
Electron-transporting chromophores were introduced to emission polymer to increase its electron affinity. Several emission chromophores also were synthesized to polycondensate with electron transporting chromophores. The influence of structure on optoelec. properties was studied. 2,5-Bis-(4- fluorophenyl)-1,3,4-oxadiazole and 9,10-dihydro-oxa-10-phosphaphenanthrene-10-oxide (DOPO) derivs. were used as electron transport and emission monomers, resp. The DOPO derivs. that contain benzene, biphenylene or 1,4-naphthalene were synthesized. The emission units exhibits blue light as expected. Aromatic polyethers were obtained by nucleophilic displacement reaction of oxadiazole-activated bis(halide) monomers with bis(phenol) monomers. All the resulted polymers are thermally stable <400°. The absorption peaks of these polymers vary between 325-350 nm, while the photoluminescence peaks vary between are 377-464 nm.

Hit Structure

CAS Registry Number
313271-85-1 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-2,5-diol, 4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)- (CA INDEX NAME)



CAS Registry Number
313271-84-0 CAPLUS

Chemical or Trade Name
1,4-Benzenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

CM
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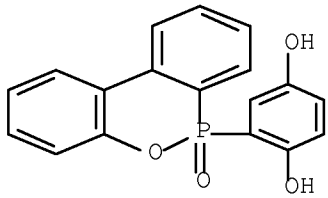
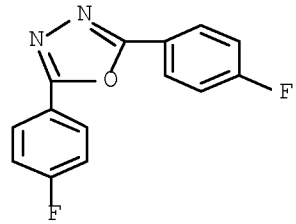
CRN 99208-50-1
CMF C18 H13 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

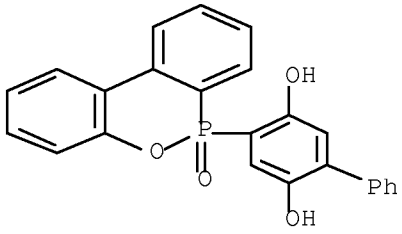


CAS Registry Number
313271-86-2 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-2,5-diol, 4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

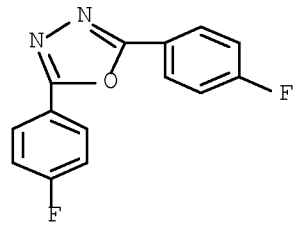
CM
1

CRN 313271-85-1
CMF C24 H17 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

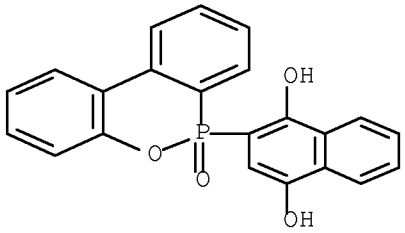


CAS Registry Number
313271-87-3 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

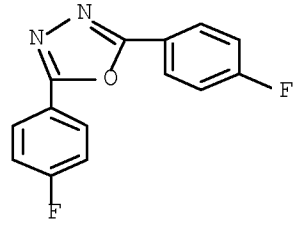
CM
1

CRN 107394-28-5
CMF C22 H15 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O



L8 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
2000:719761 CAPLUS Full-text

Document Number
134:57319

Title
Synthesis and luminescent characteristics of novel phosphorus containing **light-emitting** polymers

Author/Inventor
Sun, Y.-M.; Wang, C.-S.

Patent Assignee/Corporate Source
ROC, Department of Industrial Safety and Hygiene, Chung Hwa Institute of Technology, Tainan Hsien, Jen-Te Hsiang, Taiwan

Source
Polymer (2000), Volume Date 2001, 42(3), 1035-1045 CODEN: POLMAG; ISSN: 0032-3861

Document Type
Journal

Language
English

Abstract
Organic **light-emitting** diodes (**OLEDs**) have been developed recently, however, the efficiency of **electroluminescent** devices needs to be further improved. The electron-transporting chromophores were introduced into an emission polymer to increase its electron affinity. Several phosphorus-containing emission chromophores were synthesized and incorporated with electron-transporting chromophores. The effect of different structures on the optoelec. properties was investigated in detail.2,5-Bis-(4-fluorophenyl)-1,3,4-oxadiazole and 9,10-dihydro-oxa-10-phosphaphenanthrene-10-oxide (DOPO) derivs. were used as electron transport and emission monomers, resp. The DOPO derivs. that contain benzene, biphenyl or 1,4-naphthalene were synthesized. The emission chromophores emit blue light as expected. Aromatic polyethers were obtained by nucleophilic substitution reaction of oxadiazole-activated bis(halide) monomers with bis(phenol) monomers. All the resulting polymers were thermally stable below 450°C. The absorption peaks of these polymers varied from 325 to 350 nm, while the photoluminescent peaks varied from 377 to 464 nm.

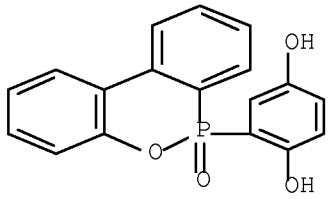
Hit Structure

CAS Registry Number
313271-84-0 CAPLUS

Chemical or Trade Name
1,4-Benzenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

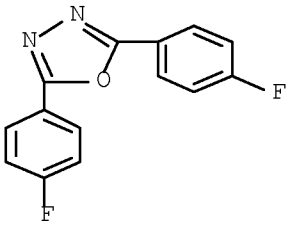
CM
1

CRN 99208-50-1
CMF C18 H13 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O

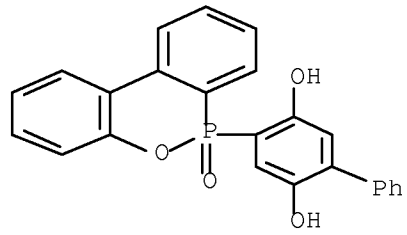


CAS Registry Number
313271-86-2 CAPLUS

Chemical or Trade Name
[1,1'-Biphenyl]-2,5-diol, 4-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

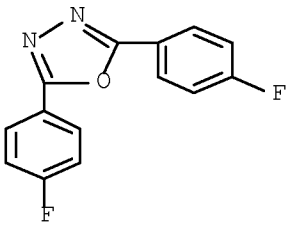
CM
1

CRN 313271-85-1
CMF C24 H17 O4 P



CM
2

CRN 324-81-2
CMF C14 H8 F2 N2 O



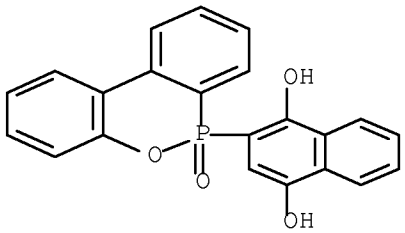
CAS Registry Number

313271-87-3 CAPLUS

Chemical or Trade Name
1,4-Naphthalenediol, 2-(6-oxido-6H-dibenz[c,e][1,2]oxaphosphorin-6-yl)-, polymer with 2,5-bis(4-fluorophenyl)-1,3,4-oxadiazole (9CI) (CA INDEX NAME)

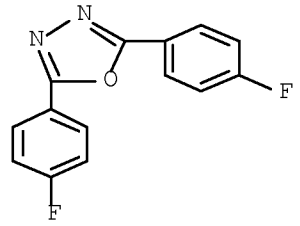
CM
   1

CRN 107394-28-5
CMF C22 H15 O4 P



CM
   2

CRN 324-81-2
CMF C14 H8 F2 N2 O



OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

. L8 ANSWER 45 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
1998:614438 CAPLUS Full-text

Document Number
129:283255

Title
Organic film, organic **electroluminescent** device, and electrophotographic photoreceptor

Author/Inventor
Hamada, Yuji; Sano, Kenji; Fujita, Masayuki; Nishio, Yoshitaka; Shibata, Kenichi

Patent Assignee/Corporate Source
Sanyo Electric Co., Ltd., Japan

Source
Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

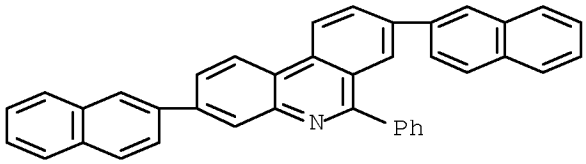
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251634	A	19980922	JP 1997-54962	19970310
JP 3557071	B2	20040825		

Abstract
The film contains a phenanthridine derivative I or a diphenylamino group-containing phenanthridine derivative II (R1-5 = CnH2n+1, cyano, NH2, alkoxyl, halo, H, Q; R = H, CnH2n+1; n = 1-10). The device has a hole- or electron- transporting layer containing the film and a **light- emitting** layer between a hole-injecting electrode and an electron-injecting electrode. The device contains the derivative as a dopant in the **light-emitting** layer. The photoreceptor contains the hole-transporting layer.

Hit Structure

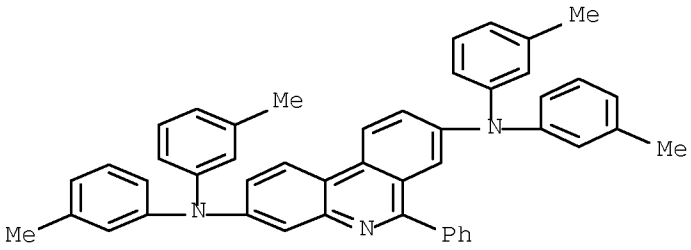
CAS Registry Number
213322-78-2 CAPLUS

Chemical or Trade Name
Phenanthridine, 3,8-di-2-naphthalenyl-6-phenyl- (CA INDEX NAME)



CAS Registry Number
213322-79-3 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N3,N8,N8-tetrakis(3-methylphenyl)-6-phenyl-
(CA INDEX NAME)



. L8 ANSWER 46 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number
1996:612623 CAPLUS Full-text

Document Number
125:234014

Title
Manufacture of **electroluminescence** device

Author/Inventor
Sato, Yoshiharu; Kanai, Hiroyuki; Ichinosawa, Akiko

Patent Assignee/Corporate Source
Mitsubishi Chemical Corp., Japan

Source
Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF

Document Type
Patent

Language
Japanese

Patent Information

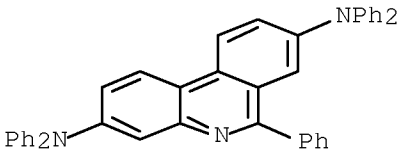
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08185979	A	19960716	JP 1995-318	19950105
JP 3552317	B2	20040811		

Abstract
The manufacture of an **electroluminescence** device, involves the aging treatment of the device, applying 5-1000 times of the c.d. used in the normal operation.

Hit Structure

CAS Registry Number
171411-27-1 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N3,N8,N8,6-pentaphenyl- (CA INDEX NAME)



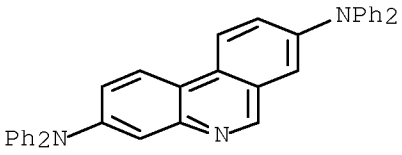
L8 ANSWER 47 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
1995:974156 CAPLUS Full-text
Document Number
124:18060
Title
Organic field-effect **electroluminescent** device with high luminance
Author/Inventor
Sato, Yoshiharu; Ichinosawa, Akiko
Patent Assignee/Corporate Source
Mitsubishi Kagaku KK, Japan
Source
Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07252474	A	19951003	JP 1994-45669	19940316
JP 3284737	B2	20020520		

Abstract
The device has an organic hole-transporting layer containing an arom amine I [Ar1-2 = (substituted) aryl, biphenyl, aromatic heterocyclic group; R1-7 = H, halo, OH, (substituted) (un)saturated aliphatic hydrocarbyl, aromatic hydrocarbyl, alkoxycarbonyl, alkoxy, aryloxy, dialkylamino, diarylamino] and an organic **light-emitting** layer between a cathode and an anode. The device shows high luminance and luminescent efficiency.
Hit Structure

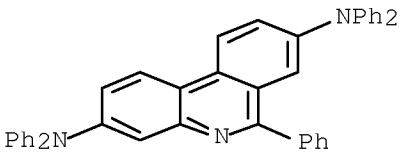
CAS Registry Number
171411-28-2 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N3,N8,N8-tetraphenyl- (CA INDEX NAME)



CAS Registry Number
171411-27-1 CAPLUS

Chemical or Trade Name
3,8-Phenanthridinediamine, N3,N3,N8,N8,6-pentaphenyl- (CA INDEX NAME)



L8 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
1995:794902 CAPLUS Full-text
Document Number
123:183661
Title
Functional thin film, production and application thereof
Author/Inventor
Saji, Tetsuo
Patent Assignee/Corporate Source
Dainichiseika Color Chem., Japan
Source
Jpn. Kokai Tokkyo Koho, 41 pp. CODEN: JKXXAF
Document Type
Patent
Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07062594	A	19950307	JP 1993-234301	19930827
JP 2825424	B2	19981118		

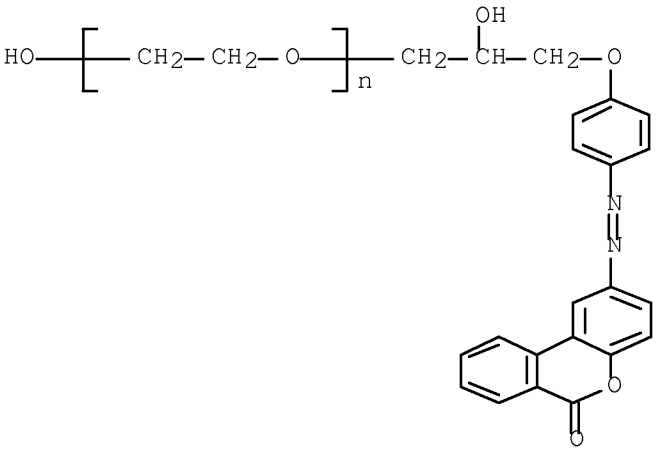
Abstract

The title film, useful for a color filter, electrophotog. device, photosensor, solar cell, **electroluminescence** device, optical recording device, optical nonlinear device, optoelectronic device, photochromic film, electrochromic film, gas sensor and ion sensor, is prepared by an electrochem. reduction of a surfactant containing an aromatic azo residue, dispersed in a water or water containing solvent. The title method requires min. or zero use of binder resin.

Hit Structure

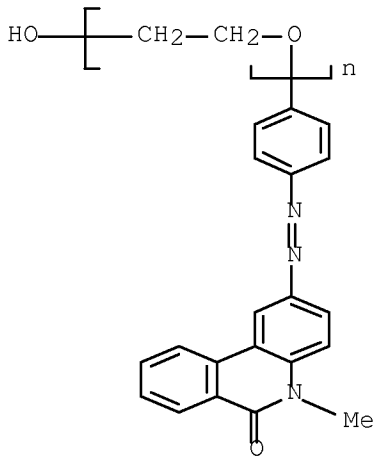
CAS Registry Number
167856-97-5 CAPLUS

Chemical or Trade Name
Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-[4-[(6-oxo-6H-dibenzo[b,d]pyran-2-yl)azo]phenoxy]propyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



CAS Registry Number
167857-07-0 CAPLUS

Chemical or Trade Name
Poly(oxy-1,2-ethanediyl), α-[4-[(5,6-dihydro-5-methyl-6-oxo-2-phenanthridinyl)azo]phenyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

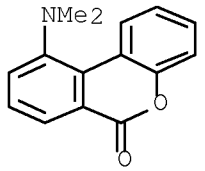
. L8 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2010 ACS on STN
Accession Number
1995:285571 CAPLUS Full-text
Document Number
122:67927
Title
Organic **electroluminescent** devices
Author/Inventor
Shibata, Toyoko; Suzuki, Shinichi; Takeuchi, Shigeki
Patent Assignee/Corporate Source
Konishiroku Photo Ind, Japan
Source
Jpn. Kokai Tokkyo Koho, 15 pp. CODEN: JKXXAF
Document Type
Patent
Language
Japanese
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06122874	A	19940506	JP 1993-209660	19930824

Abstract
The devices contain electron-transporting and phosphor layers of I or II. In I, R1 = (substituted) Ph, biphenyl, benzyl, alkyl, alkoxy; and R2,3 = (substituted) alkyl, alkoxy, aralkyl, aryl, alkyl amine, halo-alkyl, H, halo, NO2, CN, heterocyclic. In II, R1,2 are the same as R2,3 in I.
Hit Structure

CAS Registry Number
160108-45-2 CAPLUS

Chemical or Trade Name
6H-Dibenzo[b,d]pyran-6-one, 10-(dimethylamino)- (CA INDEX NAME)



CAS Registry Number
160108-46-3 CAPLUS

Chemical or Trade Name
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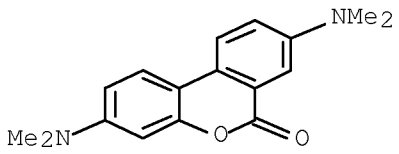

CAS Registry Number
160108-47-4 CAPLUS

Chemical or Trade Name
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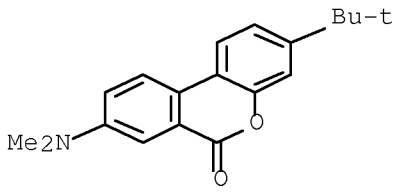

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

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---Logging off of STN---

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Executing the logoff script...